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ABSTRACT

The Southeastern Michigan Technical Assistance Program (SEMTAP) was established in 1977 by ten area community colleges and the Environmental Research Institute of Michigan (ERIM). It provides a technology delivery system or network to transfer energy conservation technology to small businesses, homeowners, and local governments, thus facilitating the transfer of federal research and development program results to organizations at the local level. Each SEMTAP college has established an Energy Center which acts as an "extension institute" or "retailer" to provide local training on a wide range of domestic problems. Chapters include: (1) Introduction, examining the original SEMTAP proposal and a summary of 1977 accomplishments; (2) Development of the Technology Transfer Network, describing network organization and college staff orientation; (3) Public Relations Efforts, discussing 1977 media, newsletter and promotional efforts; (4) Technology Marketing Activities, examining 1977 market and industry needs; (5) Technology Transfer Activities, discussing 1977 evaluation, transfer, training, and technical assistance activities; (6) Conclusions and Recommendations; (7) Proposed Program for 1978; and (8) SEMTAP Participation in the Michigan Energy Extension Service Program. SEMTAP newsletters are appended. (LH)

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16. Abstract

This is an interim report of a pilot program to evaluate the effectiveness of a technology transfer/technical assistance network that uses the combined resources of the Environmental Research Institute of Michigan (ERIM) and ten community colleges in Southeastern Michigan. The pilot program is identified as the Southeastern Michigan Technical Assistance Project (SEMTAP). The participating colleges are: Henry Ford, Highland Park, Jackson, Macomb, Monroe, Mott, Schoolcraft, St. Clair, Washtenaw and Wayne. Through such a delivery system, the vast resources of the federal research and development enterprise can provide extensive services directly to local organizations on a wide range of domestic problems.

The initial focus of the SEMTAP network is on energy conservation. Each college has established an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners, and governments learn about and use modern energy conservation technology.

A major objective of the SEMTAP program is to create new job opportunities through the development of a new energy conservation service industry in Michigan.

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SEMTAP

Southeastern Michigan
Technical Assistance Program

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SEMTAP Interim Report
For EDA Grant No. 99-06-09572
(SEMTAP: A New Technology Transfer Network
to Link Business and Industry with
Federal Research and Development)

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1.0 INTRODUCTION

In June 1975 the presidents of the member colleges of the Southeastern Michigan League of Community Colleges (SEMLCC) met with the Environmental Research Institute of Michigan (ERIM) to discuss the creation of a technology delivery system or network to assist local organizations in Southeastern Michigan to better utilize the resources associated with federal research and development programs. As a result of this collaboration, an ERIM/SEMLCC Technical Assistance Project was funded by the Economic Development Administration (EDA) of the U. S. Department of Commerce on 6 October 1977. This project has evolved into a comprehensive program in which technology is transferred to small businesses in Southeastern Michigan. The program is now identified as SEMTAP (Southeastern Michigan Technical Assistance Program).

The SEMTAP network now consists of ten community colleges located in Southeastern Michigan and the Environmental Research Institute of Michigan (ERIM). The participating colleges are: Henry Ford, Highland Park, Jackson, Macomb, Monroe, C.S. Mott, Schoolcraft, St. Clair, Washtenaw and Wayne. The initial focus of the SEMTAP network is to transfer energy conservation technology to small business firms which have the potential to incorporate such technology in their business operations. Each SEMTAP college has established an Energy Center to provide training and technical assistance to help local businesses learn about and use modern energy conservation technology.

1.1 The SEMTAP Mission: Technology Transfer

SEMTAP is a consortium of institutions dedicated to the development of a cost effective technology transfer system for the State of Michigan and the nation. The problem that SEMTAP is addressing is how to transfer the results of federal research and development (R&D) programs to organizations at the local level.[1][2][3]

The federally sponsored R&D enterprise is vast. The annual funding is approximately 25 billion dollars per year and the program trains and maintains an army of problem solvers — several hundred thousand professionals along with a like number of support personnel. The federal R&D program is dedicated to the missions of the federal agencies, and for the most part not well positioned to serve collateral

(1) R. L. Bisplinghoff, "Federal R&D-Outmoded Management Practices," Science, 12 December 1975
(2) J. C. Horsfall, "An R&D Delivery System," Science, 20 August 1976
(3) W. M. Brown and E. J. Gleazer Jr., "Technology in Response to Local Needs," to be published in Science

needs of local organizations. The major exception is the nationwide agricultural program which provides a model for the delivery of R&D services at the grass roots level of society. In this case delivery, research, and education are combined in an integrated program in support of the farming and food industries. The system evolved from the Morrill Land Grant Act of 1862 (Land Grant Colleges) and the Hatch Act of 1887 (Agricultural Experiment Stations) followed by the Smith-Lever Act of 1914 which provided enhanced delivery with the Agricultural Extension Service. The economy today rests primarily upon an urban-industrial base which does not directly task the federal R&D system. Of course many federal activities interact with local organizations, but the level of assistance is small when compared to the economic and social importance of the urban-industrial sector.

The central problem in designing a system for delivery at the local level is that of providing an adequate outreach mechanism. The entity which plays the role of the extension agent must be able to operate over a wide range of technical problem areas and be able to cut across organizational lines. The delivery system model adopted by SEMTAP in pursuing its technology transfer mission is analogous to that used by the business community for the distribution of consumer goods and is illustrated in Figure 1.

The community colleges serve as "extension institutes" and provide the rapport and one-to-one communications required to implement the "retailing" process associated with technology transfer. ERIM serves as the "wholesaler" of technological products and provides the linkage with the federal R&D enterprise and the associated federal R&D information system along with the technical expertise required to identify technical items which individual firms can use.*

* The wholesaler/retailer analogy associated with the SEMTAP delivery system was pointed out by Dr. Sidney R. Galler, Deputy Assistant Secretary for Environmental Affairs, U.S. Department of Commerce in a private communication in 1976.

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THE SEMTAP
MODEL OR ANALOGY

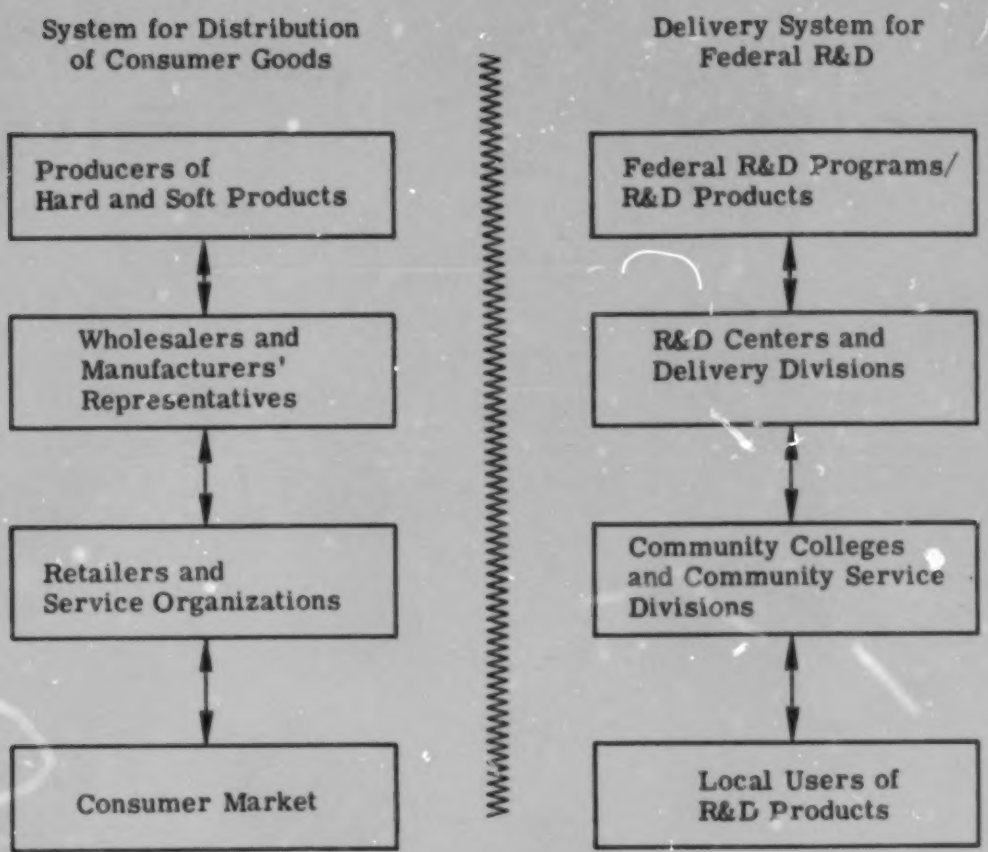
System for Distribution of Consumer Goods
Producers of Hard and Soft Products
Wholesalers and Manufacturers' Representatives
Retailers and Service Organizations
Consumer Market
Delivery System for Federal R&D
Federal R&D Programs/ R&D Products
R&D Centers and Delivery Divisions
Community Colleges and Community Service Divisions
Local Users of R&D Products

FIGURE 1.

1-3

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The SEMTAP delivery system places emphasis on small and/or minority businesses and local government agencies. More broadly, the system provides delivery, responsive R&D, and relevant educational and training services for local organizations. Thus, the SEMTAP system functions for urban and economic development and other domestic issues in a manner similar to the functioning of the agricultural program in support of farming and related activities.

From a national perspective, the major problem in the delivery of R&D services at the grass roots level of society is that of achieving intimate contact with a dispersed, rather elusive, set of clients. If one envisions creating an R&D extension service from scratch which can have contact with millions of local businesses and local government agencies, the associated cost is staggering. Also, in an attempt to design from scratch, the problem of achieving the required trust and rapport between the delivery network and the clients is at best very perplexing. The key to the SEMTAP network involves adding the technology transfer function to community colleges which already have the required contact, commitment, and rapport with local organizations. The major objective of community colleges is to educate and/or train people with emphasis on local job opportunities and continuing education. A commitment to community service is central to the value system of community colleges, and the role of interfacing with local organizations in the R&D delivery network is right in line with their current evolution. The trustees, advisory committees, financial and political support, and the constituency of the community colleges are from the local level of society. Thus, it is possible to create a highly economical R&D delivery network for service at the local level by involving the twelve hundred community colleges which have acquired size and strength in recent years.

The creation of the network requires couplings between the community colleges and the one or more research institutes in each state which are thoroughly involved in the overall federal R&D program. There are a variety of organizations of varying types throughout the country which are already adequately connected with the R&D enterprise. It is highly desirable that the organization which contains the R&D

delivery center have a spread of R&D efforts underway with major federal agencies, an institutional dedication of service to customers, and strong ties to all sectors - government, industry, and universities. By design, the Environmental Research Institute of Michigan provides the example. In this case, state government, with the help of leaders in the industrial and university communities, established a unique corporate architecture to help couple federal R&D activities to local organizations within the state. ERIM is a private, not-for-profit contract research institute, heavily involved in federal R&D , which operates with a special form of partnership with state government. Thus, ERIM has a public character by virtue of state participation combined with private legal status which provides for extensive freedom of action. The underlying concept was to maximize the Institute's ability to work simultaneously and harmoniously with all segments of society as exemplified by the coupling of ERIM capabilities with those of community colleges in the SEMTAP organization.

In general terms the SEMTAP concept makes it possible to assess and prioritize local needs and problems through the community colleges and then generate responsive R&D services through the R&D delivery centers which access the entire federal R&D enterprise. Figure 2 illustrates the two-way information flow and linkages between the local communities, community colleges, research centers, and federal research and development activities.

Much of the delivery function will involve the packaging and tailoring of information at the R&D center level to be passed on to the community colleges and then to users through seminars, special courses, and continuing educational programs. For example, there is a growing need for energy conservation activities which must take place at local levels. In view of regional variations in the availability and cost-effectiveness of various factors (e.g., gas, coal, solar, insulation, and the like) and numerous other complications, energy conservation must be learned and practiced locally. Conservation involves such activities as the modification of building codes and the education of contractors and homeowners and, in total, local industries must undergo major economic transitions. The SEMTAP network provides the ability to work with numerous agencies to generate the information needed and then deliver the required data and insight to people and organizations most affected by

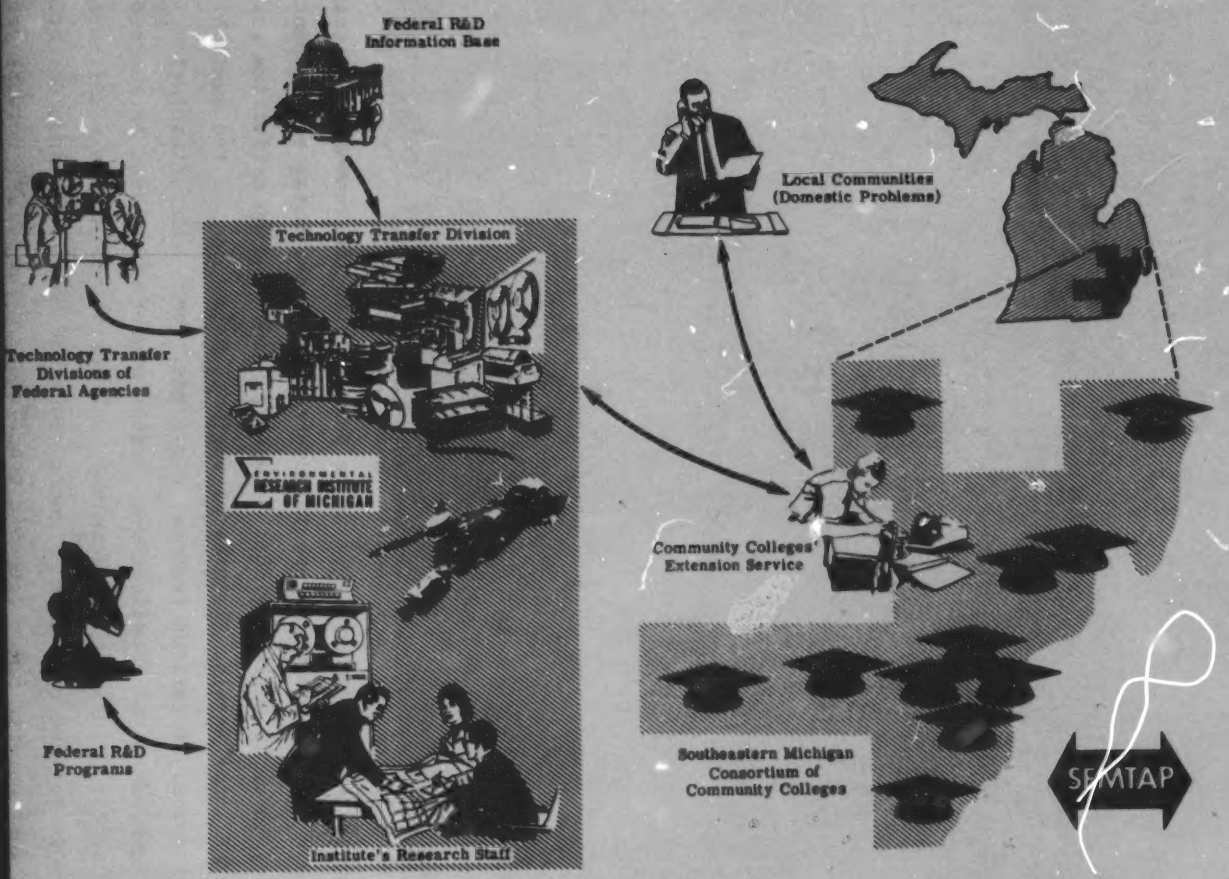
Federal R&D
Information Base
Technology Transfer Division
Technology Transfer
Divisions of
Federal Agencies
ENVIRONMENTAL
RESEARCH INSTITUTE
OF MICHIGAN
Federal R&D
Programs
Institute's Research Staff
Local Communities
(Domestic Problems)
Community Colleges'
Extension Service
Southeastern Michigan
Consortium of
Community Colleges
SEMTAP

FIGURE 2.

the energy crisis. The energy crisis has numerous parallels where more early warning or preparation could be delivered by the R&D network in connection with the assimilation of new technologies and practices. For example, additional assistance would have eased the problems associated with the wide scale introduction of computers in business operations, and currently greater assistance to and effective feedback from local organizations is needed in connection with regulations being placed on business operations by the Occupational Safety and Health Administration, the Environmental Protection Agency, and other federal and state agencies.

The general thrust of the SEMTAP delivery system is to provide a degree of localism or new federalism with respect to federally sponsored research and development resources. Such resources are highly centralized and geographically concentrated. For example, the several locations in California, Massachusetts, and the greater Washington, D.C. area (including Maryland and Virginia) contain 40% of the entire federal R&D program. The existing intense geographic concentration denies the federal programs contact with and impact from the full range of values and concerns in our country and such concentration also denies most of the states access to associated human resources needed for collateral innovative action at subnational levels throughout society.

The R&D community has a major role in a continuous renewing of the missions of federal agencies. The options and initiative recommended to Congress are considerably shaped by the innovators of the R&D enterprise. Thus, to a significant degree the R&D enterprise helps guide the development of our future society. Broad implementation of networks like SEMTAP will encourage the entry of local domestic problems such as urban economic-development and other local domestic development into the arena of competition for attention and resources. Local initiatives and federal initiatives will then tend to achieve a balance through a competition of needs and ideas. The appropriate interaction requires substantial involvement of innovators at both levels, local and federal; and networks like SEMTAP will help establish the local participation presently lacking.

1.2 Summary of the Original Proposal to EDA

The long range objective of the SEMTAP project, as discussed in the original proposal to EDA, is to adapt and expand the community service function of community colleges in Southeastern Michigan (SEM) to the role of providing assistance to local business and industry within the respective districts of the community colleges. To accomplish this with limited funding, one must develop a program which is evolutionary in nature; the program must be structured to enable each community college to adapt its staff to the technical assistance role and increase its involvement in the program in an orderly and rational manner.

It was proposed on May 14, 1976 that EDA consider funding the SEMTAP project on a yearly basis for a period of three to five years. Program extension for each succeeding year would obviously be based upon the past year's performance. Figure 3 provides a schedule of the activities proposed. The community colleges would perform three basic tasks (see Figure 3) during the first year which are directed toward establishing the college as the local point of contact for technical assistance. During the second and third years, the community colleges would become more involved in classifying their local business and industry base and NTIS retailing with the intent of establishing one-to-one communication concerning needs and problem definition of individual firms. Depending upon the success of the program, it was anticipated that the community colleges may adopt the technical assistance activity as part of its on-going community service program at the end of the third year. If this occurs, EDA will have created a new resource for economic development in the civilian economy of SEM. Furthermore, it should be possible to transplant the SEM experience to much of the country to take advantage of the broad geographical distribution of community colleges.

1.2.1 Fiscal Year 1977 Objectives

The objectives for the first year of the program were to; 1) establish the mechanism associated with the technology delivery system, and 2) transfer technology associated with energy conservation to small businesses.

SEMTAP

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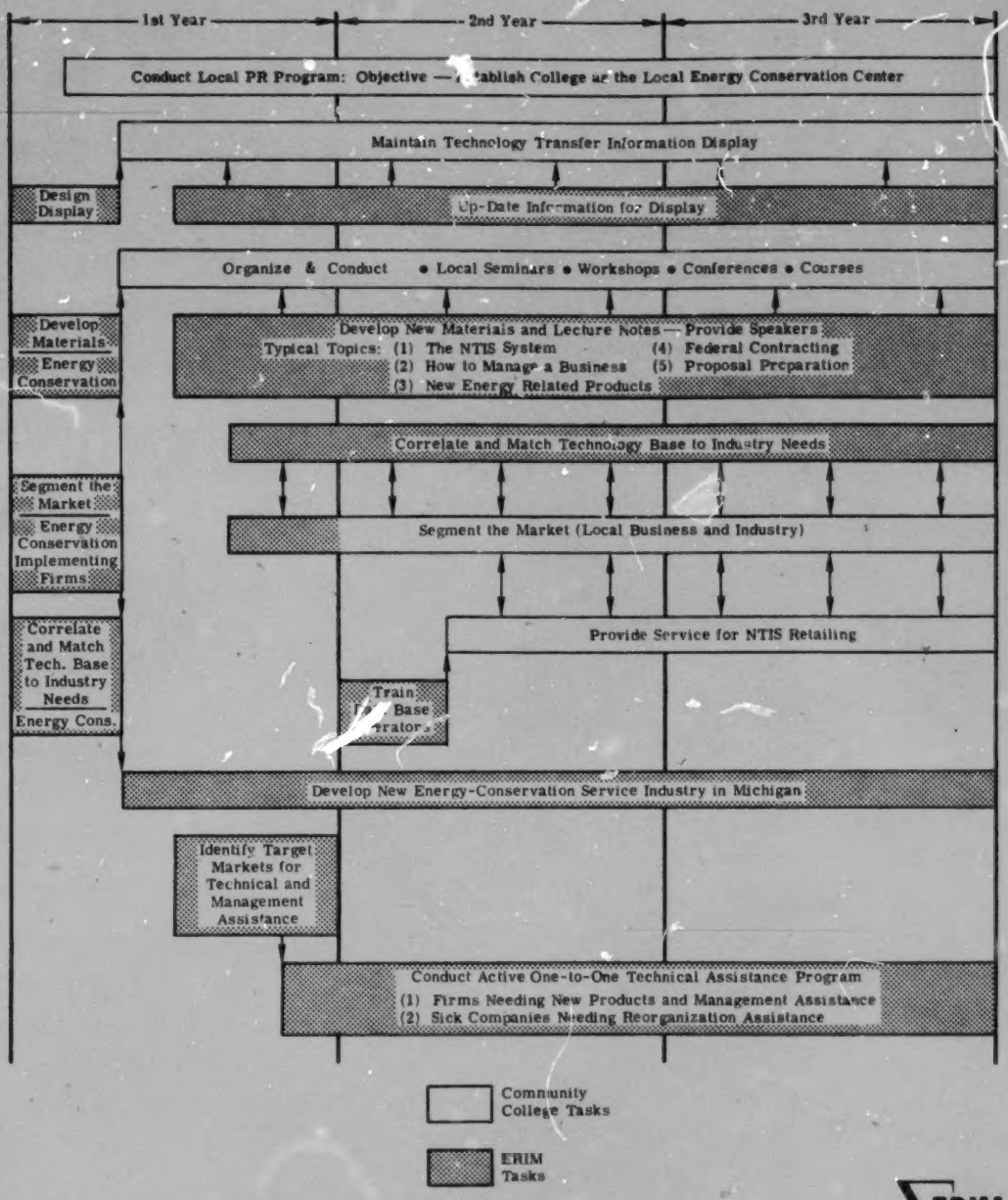
SCHEDULE OF ACTIVITIES

SEMTAP

(South Eastern Michigan Technical Assistance Program)


1st Year
2nd Year
3rd Year
Conduct Local PR Program: Objective — Establish College as the Local Energy Conservation Center
Maintain Technology Transfer Information Display
Design Display
Up-Date Information for Display
Organize & Conduct • Local Seminars • Workshops • Conferences • Courses
Develop Materials — Energy Conservation
Develop New Materials and Lecture Notes — Provide Speakers
Typical Topics: (1) The NTIS System (4) Federal Contracting
(2) How to Manage a Business (5) Proposal Preparation
(3) New Energy Related Products
Correlate and Match Technology Base to Industry Needs
Segment the Market — Energy Conservation Implementing Firms
Segment the Market (Local Business and Industry)
Correlate and Match Tech. Base to Industry Needs — Energy Cons.
Provide Service for NTIS Retailing
Train Base Trators
Develop New Energy-Conservation Service Industry in Michigan
Identify Target Markets for Technical and Management Assistance
Conduct Active One-to-One Technical Assistance Program
(1) Firms Needing New Products and Management Assistance
(2) Sick Companies Needing Reorganization Assistance
Community College Tasks
ERIM Tasks

ERIM

FIGURE 3.

Energy conservation technology was selected as the first to be transferred to local business firms because of its vital importance to SEM, the need for and public acceptance of energy conservation measures, and the potential availability of funds from other federal agencies to expand the project in later years.

Firms such as insulation contractors, heating and cooling contractors, roofing companies, builders, architects, and utility companies represent the target market for energy conservation information and products. During the first year of the program, R&D information was to be screened to define products to meet the needs of this set of business firms. As preparation for the FY77 proposal, ERIM determined that the above types of business firms do not employ infrared technology (using temperature sensors developed by NASA and DOD) in their operations. It was thus proposed that such technology be transferred to these firms to improve their energy conservation diagnostics and implementation, and to increase the employment of people trained by community colleges to operate such equipment. Furthermore, it was determined that Michigan currently lacks a service industry to perform energy conservation diagnostics; the development of such a service industry in Michigan is an objective of the proposed program.

During the first year energy conservation technology would be disseminated to a wide range of potential users by conducting seminars, workshops, conferences and courses at each of the community colleges. Such information would also be made available to the public via an Information Display to be maintained at each community college.

1.2.2 Second and Third Year Objectives

The objectives for the second and third years of the program would be to; 1) strengthen and expand the role of community colleges in the delivery system, 2) continue the development of an energy conservation service industry in Michigan, and 3) expand the technical assistance program to include a wider range of business clients and technology to be transferred to such clients.

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1.2.3 Proposed SEMTAP Procedures

The initial procedures developed for the SEMTAP project are embodied in the activity schedule shown in Figure 4. These procedures have been slightly modified since the initiation of the project, particularly those associated with technical assistance in accordance with changing circumstances.

Since October 1976, major emphasis has been placed on identifying the community college as a local point of contact for technical and information assistance. Activities which are directed toward establishing the community college as the point of contact for technical assistance include the following:

1) Install and maintain technology information display
2) Public relations
3) Organize and conduct seminars, workshops, conferences and courses
4) Provide service for NTIS* retailing
5) Segment the market
6) Correlate technology base to local industry needs
7) Match relevant technical information to specific needs

A description of each activity and associated procedures as originally proposed is provided below.

1) Technology Transfer Information Displays

Each community college participating in the program will install a highly visible display which shows selected developments in federal R&D. ERIM will provide displays and future updates of information. Such displays will include audio-visual material which describes the community college program in technology outreach, Commerce's National Technical Information Service, and selected technical presentations of new technology. The display will also include information handouts available from NTIS, NASA, EDA, DOD, etc.

The objective associated with the installation of information displays is to establish the community colleges as local points of contact for assistance in obtaining R&D information. Such displays represent a first step in this direction. The displays are low cost (approximately $1,500) and require minimal maintenance.

* National Technical Information Service, U.S. Department of Commerce

FIGURE 4 WAS REMOVED FROM THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO THE ERIC DOCUMENT REPRODUCTION SERVICE.

2) Local Public Relations Program

Each community college involved in the program will promote to the public the fact that it is a source for federal R&D information and develop a local public relations effort to convey to the local community that the community college is developing a program in technology transfer. This can be done via established mechanisms — local newspapers, radio, newsletters, mailings to local business and industry, and existing advisory committees.

3) Seminars, Workshops, Conferences, and Courses

The conduct of seminars, workshops, and conferences relating to the SEMTAP program is one of the mechanisms to encourage business and industry to utilize the SEMTAP delivery system and to develop one-to-one communications with potential clients. These will be coordinated and conducted by each community college for clients in their local area.

4) NTIS System

The Department of Commerce's National Technical Information Service has established a significant technology information and retrieval system which has not been fully utilized by the private business sector. Interested customers may quickly locate summaries of interest from federally sponsored research reports completed and published from 1964 to date. NTIS provides a full range of services including quick reaction to orders placed by phone, the compilation of bibliographies on any subject and an on-line computer search service.

Potential users of the computer search service can obtain access to the data bank if they have a terminal and telephone coupler. Costs are incurred only when the data bank is accessed. Reports can be ordered from NTIS via the computer tie-in.

If and when sufficient usage develops, community colleges will provide a terminal, telephone coupler, and operator to encourage local business and industry to utilize the NTIS information retrieval system.

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5) Segment the SEM Market

In order to develop a rational program in technology transfer, it is first necessary to identify a set of business and industrial clients who need and are interested in technical assistance. Southeastern Michigan has thousands of firms which fit this criteron. Obviously it is costly to service the full spectrum of firms desiring technical assistance. The plan is to focus initially upon a manageable subset of potential clients whose needs are relevant to energy conservation. As the program develops, the set of clients to be serviced will be expanded in consonance with the program plan and evolving confidence in the methods of technology transfer.

From a long term perspective it would be desirable to have access to a complete data base of SEM businesses and industries — formatted to satisfy the needs of the proposed technology transfer program. Obviously this will take time and money; however, we should begin to ponder its development and what organizations should maintain it or whether each community college will develop its own base. For the current first year effort SEMTAP will attempt to obtain access to all available data, screen it and identify organizations involved in energy conservation — insulation contractors, building industries, roofing companies, and architect firms. These organizations will be classified and organized in accordance with technology requirements, needs, and trends as well as size, employment history, etc. Furthermore, they would be location-classified; we want to know how many companies are located in the district serviced by each community college participating in the program. After completing this task, manufacturing companies would be similarly classified using the Standard Industrial Classification Codes (the SIC Code) and number of categories would be selected in consonance with evolving plans, availability of funds, and technology needs of local communities.

After classifying the organizations described above, a screening process would be initiated to isolate a group of subsets which represent "Target Markets" for the technology transfer process — the technology transfer process encompasses: (1) establish communications, (2) determine interest level in participating in the technical assistance program, (3) correlate technology base to technical needs, (4) match relevant technical information to needs, (5) disseminate synopsis of available information which is relevant to client subset, (6) conduct seminars or conferences, and (7) active on-site technology transfer.

6) Correlate Technology Base to Industry Needs

The local market needs will be correlated with the NTIS and other federal information bases associated with technology. This activity is fundamental to the effort to encourage local business and industry to utilize the NTIS retrieval system. We have found that most small to medium sized companies in Southeastern Michigan are not familiar with NTIS services and those that are do not have the resources to do the initial screening process. Larger companies, particularly those engaged in federal contracting, have staff assigned this role and for the most part, this staff is paid for by the Federal Government via overhead charges to the Government. We feel that SEMTAP can do the initial screening after the local industry base has been classified and thus encourage local users to spend funds to acquire specific, relevant information from NTIS.

7) Match Relevant Technology to Specific Needs

This effort will be directed toward improving the NTIS system for linking business firms on a one-to-one basis. The process of classifying local industry and correlating their technology requirements with the data base will enable our team to tell individual firms what to order

on a continuing basis and avoid the necessity for them to wade through the complete information maze associated with federal technology. The firms will then go it alone with NTIS and call upon the community college outreach program only when it has a specific problem for which it needs assistance.

1.3 Summary of First Year Accomplishments

During the first year of the SEMTAP program, significant advances were made toward accomplishing the objectives set out in Section 1.2. As described in later sections of this report, these accomplishments were initially oriented toward establishing the SEMTAP network and recruiting motivated individuals from ERIM and the colleges to develop and carry out the planned program. As the network developed, each of the component organizations undertook specific assignments aimed at identifying the local businesses who might benefit from the SEMTAP program and presenting initial programs of potential interest to the owners and employees of these businesses. These individual programs presented by each college constituted successful efforts in themselves, and in addition provided valuable experience to the participating college and to ERIM in improving the effectiveness of later technology transfer activities.

The specific accomplishments achieved during the first year of the program are itemized below:

- Each SEMTAP college organized and established an Energy Center to serve as a local point of contact for technical assistance.
- Each SEMTAP college organized and established a Technical Information Center to assist business to access federal information data bases and to provide an NTIS retailing function.
- Technical information displays with an audio/visual capability have been designed, fabricated and delivered to each SEMTAP college.

- A major news conference was held in Detroit in June 1977 to announce the SEMTAP program to the public; a representative from EDA participated in the news conference.
- The market for technology transfer services has been defined for Southeastern Michigan.
- Pilot activities have been conducted and used to establish plans for initiation of a full scale technology transfer program in FY78.
- Supplemental funds from the Department of Energy have been received to expand the SEMTAP program to a larger set of small business firms. These funds will be used to create the market for the implementors associated with the EDA program.

Figure 5 depicts the various tasks that were executed in FY77 which led to the accomplishment of the major milestones delineated above. Future tasks to continue the development of the program are also included in the figure.

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2.0 DEVELOPMENT OF THE TECHNOLOGY TRANSFER NETWORK

2.1 Organization of the SEMTAP Network

The idea of forming a technical assistance network, as developed by ERIM and the SEMLCC colleges, was based on the fact that federal research and development programs generate a vast amount of new technical knowledge that could be of greatly increased value in solving domestic problems.[4,5] Between 1940 and the current year the Federal Government spent approximately $300 billion for research and development; expenditures for the ten year period ending in fiscal year 1976 amount to about $192 billion and estimated obligations for fiscal year 1977 are approximately $25 billion. If the results and resources of the federal R&D programs could be made accessible to the man-on-the-street and to local business and industry and if technical assistance were provided to these potential users, many new job opportunities might be created.

With the technology transfer function in mind, SEMLCC and ERIM joined forces to organize the technical assistance network. After the initial meeting in June 1975, the concept was presented to the Michigan Community College Association for Development and Research at a workshop held in Bellaire, Michigan on July 31, 1975. Subsequent discussions were held with Dr. Robert Cahow, Executive Secretary of the Michigan Community College Association and Dr. John E. Tirrell, Vice President Governmental Affairs, of the American Association of Community and Junior Colleges located in Washington, D.C. The idea of creating a technology transfer network using the combined resources of community colleges and research institutes such as ERIM generated much enthusiasm. The idea quickly took on a national perspective — such a network would be of great value to myriad organizations in local communities to help them get in touch with federal research and utilize the results to solve local problems and improve the local economy. But first the concept must be demonstrated to be effective.

In August 1975 ERIM was asked by the SEMLCC presidents and the American Association of Community and Junior Colleges (AACAJC) to develop proposals for a pilot technology transfer network using community colleges in Southeastern Michigan

(4) William M. Brown, The Potential Role of Community Colleges in the National Technology Transfer Program, Presented at the National Council of State Directors of Community & Junior Colleges: Summer 1976 Workshop, Philadelphia, Pennsylvania July7-9, 1976.

(5) Gunder A. Myran, "Energy Conservation Education in the Community College", Community and Junior College Journal, p. 16, November, 1977.

as the outreach mechanism and ERIM as the technical support institute. The intent of the pilot program was to establish energy centers at each of the participating community colleges and provide technical assistance to local organizations in the effort to implement energy conservation measures. The pilot program was to serve as a model for community college networks in other states. The AACAJC was aware of ERDA's plans to develop the Energy Extension Service and was interested in having the national network of 1253 community colleges involved in the Extension Service, particularly in the urban/suburban areas of the country.

Jackson Community College, with encouragement from officials in NASA, joined the SEMLCC-ERIM team in the fall of 1975. In May 1977, Jackson opened the Michigan Space Center which is dedicated to the concept of disseminating space technology to organizations and people in Michigan. The new consortium was named SEMTAP — Southeastern Michigan Technical Assistance Project. It was envisioned that the community colleges participating in SEMTAP would serve as "retailers" of technological products and that ERIM would function as the "wholesaler". Thus, the technology transfer function would be implemented in a fashion similar to the distribution of consumer goods and services. As the "wholesaler", ERIM would provide technical support to colleges and access to federally developed technical products and the federal R&D information base.

The news that a new type of technology transfer network that had national implications was being organized in Michigan soon got the attention of federal agencies in Washington concerned with technical assistance programs. The AACAJC was instrumental in the promotion of the pilot program to the Technical Assistance Branch of the Economic Development Administration, ERDA, and NASA. As a result of AACAJC's efforts, ERIM was awarded an EDA grant ($150,000) in October 1976 to establish energy centers in the ten colleges.

The SEMTAP energy conservation program provides training and technical assistance to energy conservation implementors (builders, architects, insulation contractors, etc.), and more broadly, it will facilitate the emergence of energy conservation enterprise and industry in Michigan. The program has been very

effective in terms of transferring energy conservation technology to organizations in Southeastern Michigan. It is likely that the energy program enacted by Congress and signed by President Carter will spawn a totally new service industry (throughout the nation) within two to three years. One of the highlights of the proposed energy program is the emphasis placed on a nationwide plan to insulate homes, business, and industrial plants and facilities to conserve scarce energy. To provide incentives to individual homeowners, a tax credit of up to $410 will be given if the homeowner spends up to $2200 in a single year between April 1977 and December 31, 1984 on conservation measures such as insulation, weather stripping, efficient furnace, and others. Businesses could receive a 10% tax credit for energy improvements. There will also be a tax credit of up to $2,150 for installation of certain solar energy equipment for both homes and businesses. In Michigan there are suggestions that utility companies, through designated contractors, may provide for the installation of insulation materials in individual homes participating in the program. Tax incentives for installation of energy conservation or alternate energy systems have been passed or proposed in Michigan.

The energy conservation incentives being developed at the federal and state level lead one to believe that a major new service industry will be created to implement energy conservation. Small business firms will be a major benefactor of these new initiatives. Opportunities include insulation services, inspection and evaluation services to determine the quality of insulation work — using infrared diagnostics instrumentation, and design, installation, and maintenance of solar heating and cooling devices. The SEMTAP energy conservation program was developed with this in mind.

The SEMTAP community colleges provide training and technical assistance for business firms to acquire skills and trained manpower necessary to provide these new energy conservation services. The SEMTAP program also provides assistance to the individual homeowner through home weatherization seminars and training sessions.

In the future, the SEMTAP program will bring other federally developed technology to the attention of local organizations and assist them in the effort to implement such technology. Plans are underway to transfer NASA's earth resources satellite technology and federal environmental research results to local organizations.

Organizations and people in Southeastern Michigan should derive many benefits from SEMTAP's technology transfer activities.

2.1.1 The SEMTAP Organization

The SEMTAP organization is shown in Figure 6. The SEMTAP policy committee, which consists of the presidents of the SEMTAP colleges, representatives of the Michigan Community College Association, and the American Association of Community and Junior Colleges, and the president of ERIM, provides overall guidance to the program. The SEMTAP program director is selected by the policy committee; Mr. George Peace of ERIM is serving as the current Director during the pilot phase of the SEMTAP program. A SEMTAP energy advisory committee provides technical guidance to the program.

Each SEMTAP college has established an Energy Center and appointed a member of the college staff to coordinate all related activities. In addition, each college has established an advisory committee consisting of local business leaders to aid in the development of the college energy conservation program.

The presidents of the Southeastern Michigan League of Community Colleges (SEMLCC), who constitute the majority membership of SEMTAP, meet monthly to discuss college business. These meetings include discussions of SEMTAP business and plans. Periodic SEMTAP policy meetings are also held to discuss major issues associated with SEMTAP and to assess the progress of the SEMTAP program.

The SEMTAP policy committee is also active in the dissemination of the SEMTAP experience to other community colleges throughout the country. A number of national and regional meetings have been attended by members of the SEMTAP policy committee to promote the development of community college technology transfer networks in other states. Typical examples of these activities include presentations at community college meetings such as the following:

FIGURE 6 WAS REMOVED FROM THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO THE ERIC DOCUMENT REPRODUCTION SERVICE.

. The Potential Role of Community Colleges in the National Technology Technology Transfer Program — W. M. Brown — presented at the National Council of State Directors of Community/Junior Colleges, Philadelphia, PA., July 1976

. SEMTAP Information Display 19th Annual Michigan Community College Workshop, Traverse City, MI., July 1977

. Community College Concerns Within The Community — Dr. George J. Huebner — New College Presidents Meeting, Council of North Central Community and Junior Colleges, Traverse City, MI., June 1977

. The SEMTAP Program — to be presented by Dr. George J. Huebner, Chairman of the Board of ERIM at the annual meeting of the American Association of Community and Junior Colleges, April 1978 in Atlanta, GA.

2.1.2 Description of SEMTAP Functions

Figure 7 illustrates the functions being established by the participants in the delivery system. ERIM's Technology Transfer Division maintains contact with all federal agencies which have established technology transfer programs (30 agencies have recently created technology transfer divisions) to determine what new technology is available for SEM business and industry clients and to keep in touch with future sources of funds to expand the program. ERIM's Technology Transfer Division also draws upon ERIM's research staff (about 200 scientists and engineers) for specialized technical assistance. ERIM's personnel assigned to the Technology Transfer Division working in cooperation with the community colleges' extension agents are classifying and organizing businesses and industry in Southeastern Michigan in accordance with technical needs and the scope of the program. This data base will be used to match technology to a firm's technological needs in order to disseminate specific, relevant information.

As the data base of clients to be served is completed, each community college establishes communications with clients selected for the program, installs a technology transfer information display at the college, organizes seminars and conferences, and generally serves as a local point of contact for technical assistance in accordance with its local community service objectives and the scope of the program.

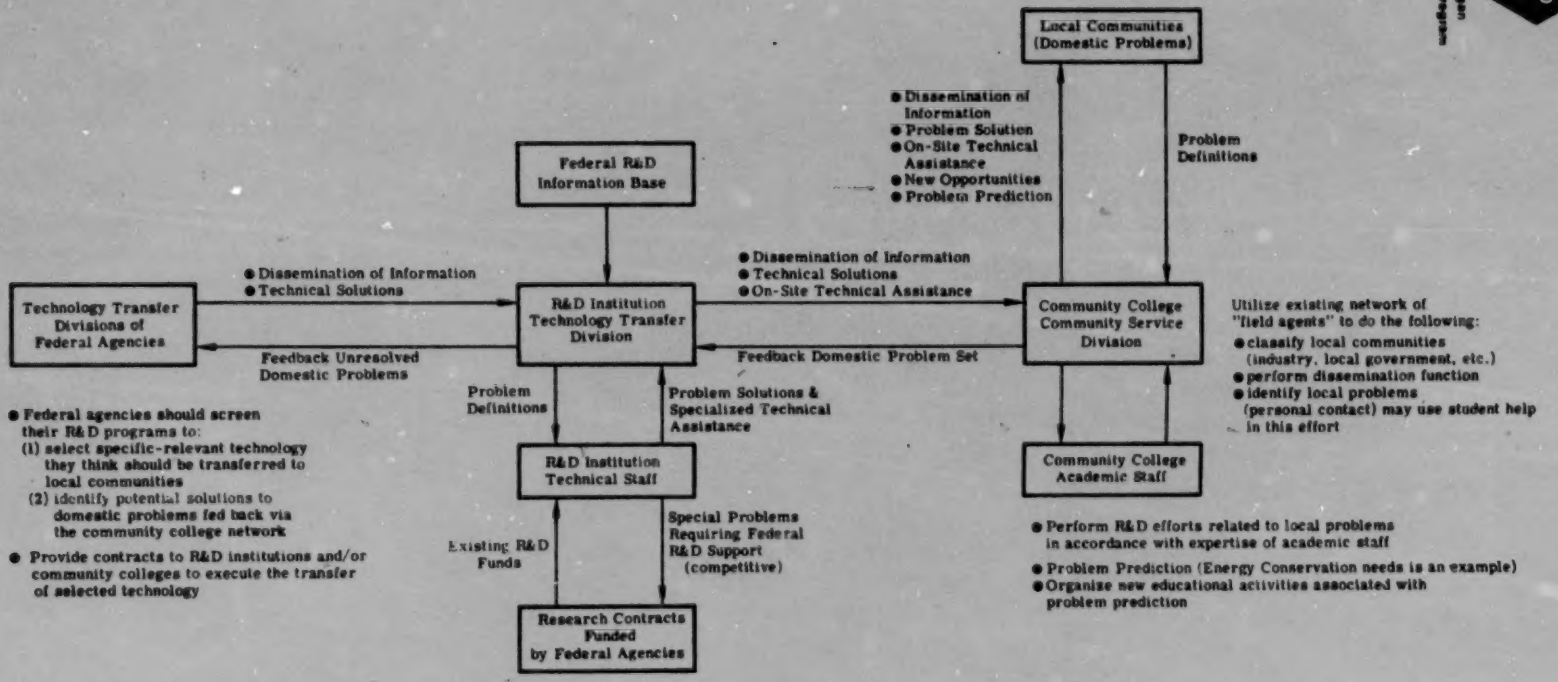

Local Communities (Domestic Problems)
● Dissemination of Information
● Problem Solution
● On-Site Technical Assistance
● New Opportunities
● Problem Prediction
Problem Definitions
Federal R&D Information Base
● Dissemination of Information
● Technical Solutions
● On-Site Technical Assistance
● Dissemination of Information
● Technical Solutions
Technology Transfer Divisions of Federal Agencies
R&D Institution Technology Transfer Division
Community College Community Service Division
Feedback Unresolved Domestic Problems
Feedback Domestic Problem Set
Problem Definitions
Problem Solutions & Specialized Technical Assistance
R&D Institution Technical Staff
Community College Academic Staff
Existing R&D Funds
Special Problems Requiring Federal R&D Support (competitive)
Research Contracts Funded by Federal Agencies
Utilize existing network of "field agents" to do the following:
● classify local communities (industry, local government, etc.)
● perform dissemination function
● identify local problems (personal contact) may use student help in this effort
● Federal agencies should screen their R&D programs to:
(1) select specific-relevant technology they think should be transferred to local communities
(2) identify potential solutions to domestic problems fed back via the community college network
● Provide contracts to R&D institutions and/or community colleges to execute the transfer of selected technology
● Perform R&D efforts related to local problems in accordance with expertise of academic staff
● Problem Prediction (Energy Conservation needs is an example)
● Organize new educational activities associated with problem prediction

FIGURE 7. SYNERGISTIC FUNCTIONS OF A RESPONSIVE DELIVERY SYSTEM FOR THE FEDERALLY SPONSORED R&D ENTERPRISE

2-7

The unique corporate positioning and dedication of ERIM and the community colleges are central to the understanding of how the delivery system will help deal with business problems such as those described in the previous section. ERIM, in its normal course of business, has intimate contact with the federal R&D enterprise and has broad technical and management resources that can be utilized in the technology transfer process. The community colleges, on the other hand, have the necessary intimate contact with organizations within their respective local communities. A commitment to community service is central to the value system of community colleges, and the role of interfacing with local organizations in the technology transfer process is right in line with their current evolution — the trustees, advisory committees, financial and political support, and the constituency of the community colleges are from the local community, including local business and industry. The proposed project will enable the community colleges to become more active in economic development and ultimately incorporate or broaden such activities within their current community service programs. Thus, the funds provided by EDA for this program will be greatly amplified by synergistic collateral programs within the community colleges.

In summary, the transfer of technology developed by the Federal Government can be achieved in a cost-effective manner by cooperative efforts between contract research institutes such as ERIM and the community colleges which perform the role of "extension institutes".

2.2 College Staff Orientation Conducted in FY77

Considerable effort was expended during FY 77 to orient a broad range of community college staff to the EDA program. The purpose of this was to 1) develop the personnel necessary to support and promote the college energy conservation center activities, 2) develop the resource capability to operate the Technical Information Center service program, and 3) create a coterie of college instructors who would incorporate energy conservation training courses into future community college programs. A wide range of staff support at the colleges will provide the future amplification of EDA funds necessary to make the SEMTAP program successful.

SEMTAP
Southeastern Michigan
Technical Assistance Program

2.2.1 SEMTAP Coordinators

Each SEMTAP community college, early in the FY 77 program, established an energy center coordinator to organize and schedule college activities and programs related to the EDA objectives. The persons listed below are the current SEMTAP college coordinators.

1. Henry Ford Community College

   Dr. Stewart Gingrich
   5101 Evergreen Road
   Dearborn, Mich. 48128
   (313) 271-2750, x237

2. Highland Park College

   Dr. Roger Felix
   Glendale & Third Streets
   Highland Park, MI. 48203
   (313) 868-1264, x228

3. Jackson County Community College

   Dean Wallace Ollila
   2111 Emmons Road
   Jackson, MI. 49201
   (517) 787-0800, x277

4. Macomb County Community College

   Paul B. Thacker
   Div. of Continuing Education
   So. Campus-Box 948
   Warren, Michigan 48093
   (313) 286-8000, x320

5. Monroe County Community College

   Dean Edwin O. Dwyer
   1555 Raisinville Road
   Monroe, Michigan 48161
   (313) 242-7300, x214

6. Charles Stewart Mott Community College

   Dr. Alien Matherne
   1401 East Court Street
   Flint, Michigan 48503
   (313) 762-0468

7. Schoolcraft College

   Dean Ron Griffith
   18600 Haggerty Road
   Livonia, Michigan 48152
   (313) 591-6400, x264

8. St. Clair Community College

   Jerry Lynch
   323 Erie Street
   Port Huron, Michigan 48060
   (313) 984-3881, x235

9. Washtenaw Community College

   Edith Jacques
   Ypsilanti Center-214 N. Huron
   Ypsilanti, Michigan 48197
   (313) 482-2230

10. Wayne County Community College

    Patricia Drabant
    4612 Woodward Avenue
    Detroit, Michigan 48201
    (313) 832-4750

Monthly meetings are held at ERIM in which the SEMTAP college coordinators share experiences and help plan current and future SEMTAP events. The coordinators also arrange for other college staff to attend planning meetings for such activities as seminars, training courses, technical assistance, and public relations.

2.2.2 Energy Advisory Committee

Each SEMTAP college has established an energy advisory committee to assist the college in the development of an energy training program that is suited to the local community. In some cases, existing committees were used to develop the energy conservation program. Committee members consist of local business and community leaders as well as community college staff. The advisory committees help plan future seminars and training courses and help to promote the programs via local trade associations and community organizations.

2.2.3 Public Relations Personnel

Each college conducted one or more seminars and workshops for small businesses interested in the SEMTAP program during the period from October 1976 through September 1977. Beginning in September 1977, each college has scheduled at least two seminars and follow-up training courses for small businesses. To insure an adequate turnout for these events, the SEMTAP community college public relations director was engaged to promote the program locally. Orientation and planning meetings for the college public relations staff was held in April and June 1977. These public relations persons also participated in the June 1977 news conference held at the Engineering Society of Detroit.

At ERIM Judith Steeh and Robert DiGiovanni of the Communication and Information Center have been concerned with providing program-wide public relations material, as well as consulting with the colleges on various aspects of publicizing the program. Ms. Steeh is responsible for generating the monthly SEMTAP Newsletter as well as descriptive brochures and other material; monitoring college public relations activities; and for liaison with the colleges on matters pertaining to public relations. Dr. DiGiovanni directed the first slide/tape show for use in the SEMTAP audio/visual

display, and will be handling other, similar special projects. ERIM's Communication and Information Center has easy access to the services of photographers, graphic artists, typesetters, and printers for the production of SEMTAP material.

At three of the ten colleges the public relations department is involved with SEMTAP to one degree or another. Allan Levy, Director of Public Relations and Publications at Macomb Community College, was appointed by SEMLCC to coordinate college public relations activities for the SEMTAP news conference in June 1977. Mark McPherson, Director of Information Services at Wayne Community College, is a member of the three-person team that coordinates SEMTAP activities at that college. Richard Heitzner Director of College Relations at Mott Community College, works closely with the college coordinator, Dr. Matherne.

At the remaining seven colleges public relations and publicity are primarily the responsibility of the coordinators themselves, and efforts in this area have covered a wide range of activity, depending on the special requirements of each college.

2.2.4 College Instructor and Staff Participation

A major effort was initiated in FY77 to; 1) acquaint community college instructors with the EDA/SEMTAP program objectives, 2) train them to conduct future seminars and mini-courses and to provide technical assistance to businesses participating in the SEMTAP training program, and 3) train college staff to conduct the activities associated with the college Energy Center and Technical Information Center.

2.2.4.1 Technical Information Centers

The SEMTAP network uses a variety of media for transferring technology, such as seminars, courses, audio-visual displays, personal contact and one-on-one technical assistance, and printed technical information. The transfer process usually involves the interaction of several mediums: for instance, a person sees the display, is led from there to a seminar, then a class, etc. The technical information medium interacts heavily with all the other modes of SEMTAP communication. Consequently, a SEMTAP Technical Information Center has been established at each college (see Figure 8).

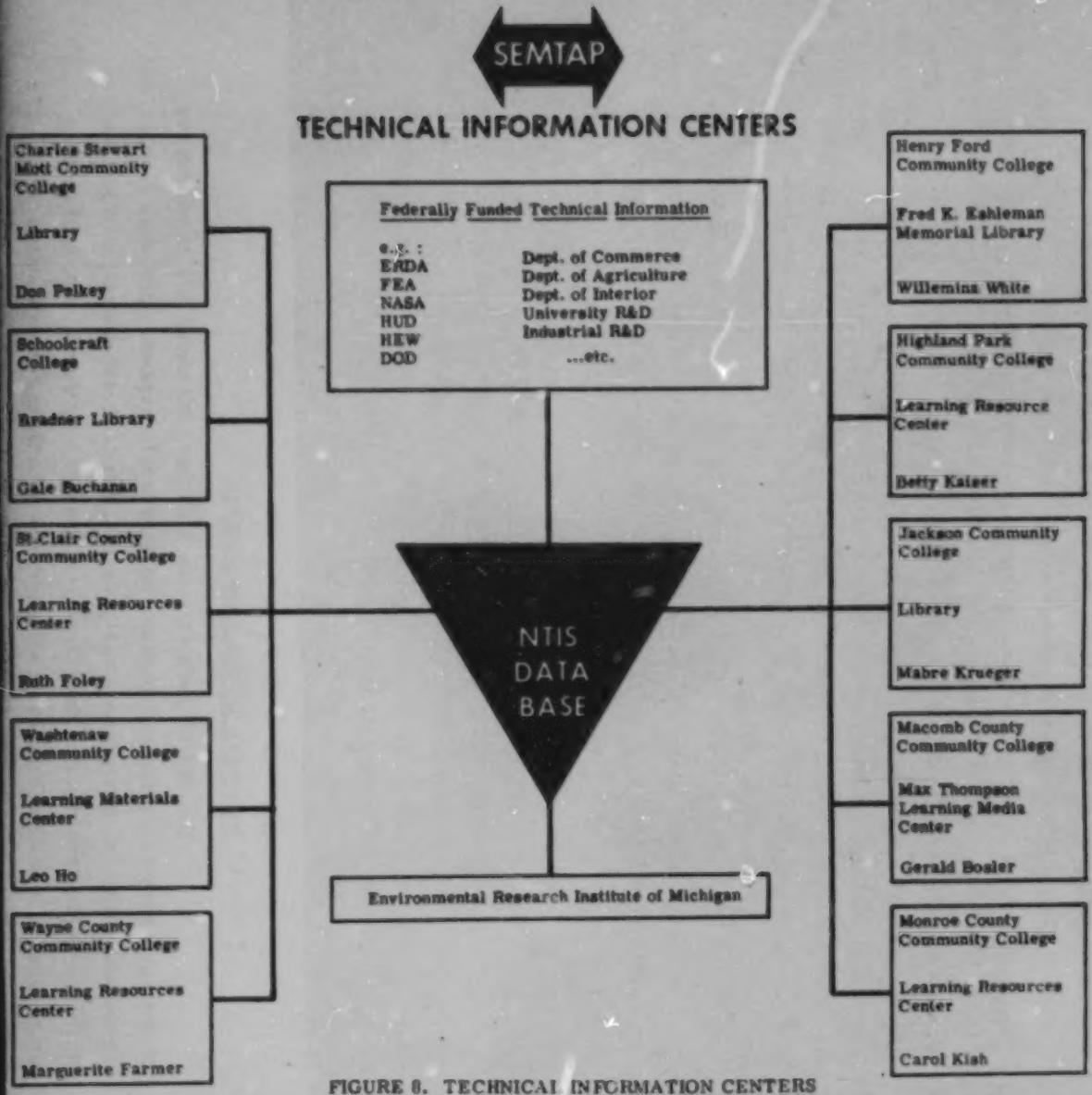


FIGURE 8. TECHNICAL INFORMATION CENTERS

Transfer of technical information in SEMTAP has been designed to supplement all the other program elements. Technical information is necessary before, during, and after the transfer process. The primary uses of technical information in SEMTAP are to

1) assist the client in defining and solving problem;
2) assist the community college with program development;
3) assist ERIM staff in the development of seminars, courses, and assistance; and
4) assist ERIM staff in the development of the overall program.

The first task in developing the Technical Information Center was to train the community college contacts and librarians in the nature and use of technical literature. In December 1976 the librarians and contacts were invited to ERIM for a SEMTAP briefing, to see the preliminary audio-visual display design, and to begin to discuss technical information resources. The idea of a technical information capability in the field of energy conservation at each college was presented at this time. The December meeting also identified the information contacts at each college as noted in Figure 8.

A meeting of the librarians was held in January 1977 where the acquisition and use of technical information was discussed in detail. Specific topics covered were:

The role of libraries in SEMTAP
The nature of report literature
National Technical Information Service (NTIS)
Federal information in energy
On-line access to NTIS

SEMTAP depends heavily on NTIS for technical information and the project has made a special effort to acquaint the colleges as well as clients with the services provided by NTIS. Mr. George Kudravetz, NTIS Project Manager, generously set up a $2,000 account at NTIS for SEMTAP. At the January meeting, ERIM announced that each college could spend $180 on NTIS materials which would serve as the

beginning of its technical information collection. A bibliography of pertinent titles was sent to the colleges from which they chose these initial items. Each college used part of this money to buy the NTIS Weekly Government Abstract on Energy, which will serve as a basis for future selection.

By late March all the colleges had placed their NTIS orders and were beginning to receive their documents. The librarians, who had little familiarity with this type of literature, were very favorably impressed. The documents are available for checkout by the college libraries.

As the year progressed, many of the colleges purchased additional NTIS reports for their collections. In addition, some of the libraries bought suitable reference texts to complement the reports (ASHRAE energy conservation tools, energy handbook-type materials, etc.).

At the January training session, ERIM also introduced the idea of the colleges serving as "NTIS Retailers". This would allow any SEMTAP program participant to order and buy NTIS materials directly from the colleges. The NTIS retailing capability at the colleges is not yet being used to a great extent, but as the volume of on-line searching increases, it is anticipated that the demand for actual documents will also rise.

At the conclusion of the January meeting, Claudia Vandermade, the ERIM Information Center Librarian, briefly discussed the features of an on-line searching system. The principles of boolean operators were introduced and she demonstrated an on-line search using DIALOG.

After the January meeting, there were some informal meetings between ERIM and individual college librarians to discuss special aspects of the program. The Schoolcraft librarian visited in February to ask about selection tools for NTIS materials.

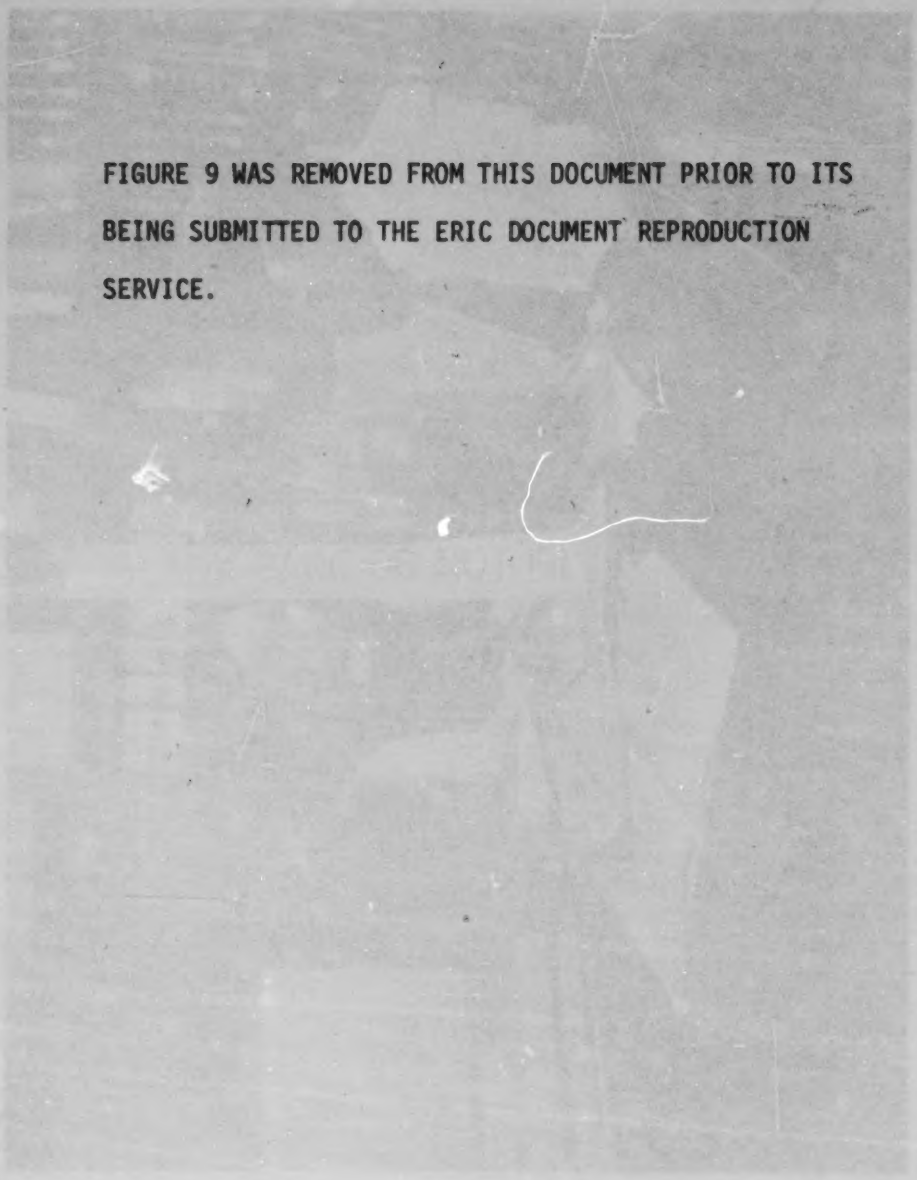
Early in the program it was decided that an on-line search capability would greatly benefit the SEMTAP program. An on-line system is economical in terms of labor, offers a much wider variety of data bases than an individual library could carry in hard-copy, is exhaustive in terms of coverage and scope, and has a rapid turnaround time. Any SEMTAP client may request an on-line search at one of the colleges. The search will be run by the librarian and the client is charged for the cost of the search (excluding the librarian's labor). Many searches will cost under $10, though others may go as high as $50 or $60. In general, the more specific the search, the lower the cost.

In June, a meeting was held to teach the librarians how to use DIALOG. Though several commercial suppliers of data bases exist, it was decided to begin work with Lockheed's DIALOG because their coverage of the NTIS data base was more complete. At some time in the future the SDC's Orbin system will be utilized in the program. Computer terminal equipment used to access the DIALOG system is shown in Figure 9.

The ERIM Information Center librarian ran DIALOG searches for SEMTAP clients before the college librarians were trained. The subjects searched were: Energy Conservation in Greenhouses, Methane-Methanol Production, and Energy Conservation pertaining to major appliance retrofit. The person requesting the greenhouse information bought three NTIS documents through ERIM as a result of the search. The person interested in methane worked through Jackson Community College to obtain the citations discovered from his search (the citations were predominantly from agricultural and farming journals).

Mr. Joe DiSalvo of DIALOG in Chicago taught the training course in June. Eight of the colleges were represented at the training session. The librarians learned the techniques quickly and were very eager to begin full-scale searching. Most of the librarians were not working for the summer, so they actually began their DIALOG activity in the fall of 1977.

The two colleges that were unable to attend the original session were trained in August by Claudia Vandermade. Also, in July a librarian from Washtenaw Community College was trained in DIALOG (at ERIM) because the original librarian was on vacation and Washtenaw needed the capability over the summer.



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2.2.4.2 Training Instructors to Conduct Seminars and Courses

Training sessions for community college instructors were held in August and September 1977 to prepare them to conduct the energy conservation seminars scheduled for September 1977 through January 1978. Training sessions to prepare instructors to teach the minicourses will be scheduled in November and December 1977.

A list of college instructors who have participated in the program is included herein.

Name of Instructor	College	Technical Area
James C. Martini	Henry Ford	Heating, Cooling, Air Conditioning, Stationary Engineering
John D. Xerri	Henry Ford	Heating, Cooling, Steam Power
Michael Davis	Henry Ford	Heating, Cooling, Air Conditioning
John Cates	Highland Park	Math, Physical Sciences
Dale Miller	Highland Park	Math
William F. Wilcox	Highland Park	Physics, Math, Chemistry
Patrick D. Miller	Jackson	Civil Engineering, Finance
W. B. Cooper	Macomb	Heating, Air Conditioning, Refrig.
Raymond Lee	Macomb	Climate Control, Air Conditioning, Refrigeration
D.A. Verhaeghe	Macomb	Energy Conservation, Industrial Arts
Rolf Anselm	Mott	Architectural Technology
Dean Buzzard	Mott	Math, Physics
Douglas Laine	Mott	Math & Science
D.J. Saturnino	Mott	Physical Sciences, Chemistry
John Lesko	Schoolcraft	Physics

Name of Instructor	College	Technical Area
Ron McBride	Schoolcraft	Heating, Cooling, Refrigeration
Dwight Hinds	Washtenaw	Physics
Dave Weyant	Washtenaw	Electrical Engineering
Milton Pool	Washtenaw	Chemistry, Instrumentation
Sam Ajiri	Wayne	Chemistry, Environmental Eng.
W. Toothacker	Wayne	Physics

2.2.4.3 Training Implementors as Part-Time College Instructors

A number of firms engaged in the energy/energy conservation business have expressed an interest in serving as part-time instructors at the SEMTAP colleges. Training sessions are planned for December to prepare these persons for the SEMTAP program. Persons who have expressed interest to date and will be contacted in the near future are listed below.

SEMTAP
Southeastern Michigan
Technical Assistance Program

Teaching Candidates

Kenneth Eagleton
2243 E. Baldwin
Grand Blanc, MI 48493
694-1812
(business 235-1511, ext. 519)

Occupation - Gas Services Supervisor

Robert S. Gazall (Panel)
124 W. Kearsley St.
Flint, MI 48502
239-4691

Occupation - Architect

Richard C. Hahn
Leach Trane Service Agency, Inc.
Flint, MI 48507
767-7800

Occupation - Heating and Air Conditioning

Harold L. Hammond
Consumers Power Co.
3201 E. Court St.
Flint, MI 48501
235-1511, ext. 472

Occupation - Energy Management Consultant

George E. Hier
3388 E. Atherton
Burton, MI 48519
742-2871

Occupation - Contractor

Anton Krapek
124 W. Kearsley St.
P.O. Box 3096
Flint, MI 48502
239-4691

Occupation - Professional Engineer

Donald E. Lee
705 Kelso St.
Flint, MI 48506
767-5600

Occupation - Architect

Teaching Candidates

Clarence A. Rachar
3201 E. Court St.
Flint, MI 48501
235-1511

Occupation - Energy Services Consultant

Robert A. Rowe
Rowe Design
1351 Hammerberg Ct.
Flint, MI 48507
234-0489

Occupation - Architect

G. T. Kinney
GT/SS Engineering
950 Romeo Rd.
Leonard, MI 48038

R. Duncan Tremaibe
Controlled Tectronics
2266 W. Court St.
Flint, MI 48503
235-3552

Occupation - President of Tectronics

Richard Reinholt
2024 Suffolk St.
Ann Arbor, MI 48103

Occupation - Architect

Joseph St. Cyr, President
Solar/Wind Energy Systems, Inc.
The Professional Village
10833 Farmington Road
Livonia, MI 48150
421-6000

John D. Cochrane III, President
A A Energy Savers
1530 Edinborough
Ann Arbor, MI 48104
769-5649

SEMTAP
Southeastern Michigan
Technical Assistance Program

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Occupation - Professional Engineer

SEMTAP

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3.0 PUBLIC RELATIONS CONDUCTED IN FY77

In order to acquaint the general public and specific business clients with the availability of assistance from SEMTAP, a number of activities were undertaken to publicize the project and its objectives throughout Southeastern Michigan. These activities included the distribution and use of a number of audio-visual displays to the colleges. A monthly newsletter is published and distributed to a wide audience to report on current activities in the SEMTAP program.

A continuing SEMTAP Public Relations Program was organized in June and July 1977. A SEMTAP news conference was held at the Engineering Society of Detroit on June 29. After the initial SEMTAP news conference, each college initiated its own public relations program, establishing contacts with local media and mounting its own publicity campaign for seminars and other programs.

3.1 Media

This section describes SEMTAP's relations during the past year with the press and the electronic media.

3.1.1 News Conference

A news conference was held at the Engineering Society of Detroit on June 29 to inform the public about the SEMTAP technical assistance program. The event was coordinated with Allan Levy of Macomb Community College, representatives from other SEMTAP colleges, and ERIM personnel.

Speakers at the event were: Robert F. Roelofs (President of Macomb County Community College and the Southeast Michigan League of Community Colleges), who discussed the need for such a program; Walter Archibald (Technical Assistance Program Economic Development Administration), who presented EDA's point of view; and William Brown (President of ERIM), who covered technical aspects of SEMTAP. Their presentations were excellent and contributed greatly to the success of the conference.

Following is a list of the media present:

Newspapers: Detroit News, Flint Journal, Jackson Citizen-Patriot, Livonia Observer Eccentric, Michigan Chronicle, and Detroiter Business News

Radio Stations: WWJ-TV (Channel 4) and WXYZ-TV (Channel 7)

Trade Publications: Iron Age, Metalworking News, Detroit Engineer, Air Conditioning News, and Detroit Industrial Market News

The colleges also sent copies of the news release kit to their local papers and radio stations. In all, some 100 kits were distributed throughout Southeast Michigan.

Coverage resulting from the conference was excellent. Information about SEMTAP was disseminated on all the radio stations, including a telephone interview with Mr. Roelofs, and two major Detroit television stations carried the story. Press coverage was widespread.

After the initial SEMTAP news conference, each college initiated its own local PR program to promote its SEMTAP activities. This activity is a continuing one and is organized to correspond to current and future events.

3.1.2 Other Coverage

Following the rather extensive press coverage that resulted from the news conference, there were only a few articles about SEMTAP in area newspapers for a time. In September and October, however, more articles began to appear as the colleges sent news releases to publicize their technical assistance seminars (see Figure 10).

Most of the colleges seem to have been able to use local radio to good effect. For example, Edith Jacques at Washtenaw Community College taped a series of interviews for WAAM, which were then used as fillers on news programs for several weeks. Several other SEMTAP coordinators have participated in "phone-in" radio shows, and of course, many have advertised their seminars on local radio.

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THE DETROITER BUSINESS NEWS

July 14, 1977

Energy conservation brings business, education together

(SEMTAP) for small businesses to help them cope with mounting energy problems. For the new energy regulations that will affect their industry that will ...

ATTENTION: REALTORS, BUILDERS, CONTRACTORS

SEMTAP of Washtenaw Community College is sponsoring a conference that is a MUST for you

"THE ROLE OF THE REALTOR IN ENERGY CONSERVATION"

Tuesday, October 11, 1977

Place: Lecture Hall II, 2nd floor of the Exact Science Building, WCC Main Campus

Conference Agenda:

REGISTRATION

THE ROLE OF THE BUILDER, CONTRACTOR — presented by Glen Hall, Guenther Builders Co., Inc.

AN OVERVIEW OF PRESENT & PENDING ENERGY CONSERVATION AND PRESENT MICHIGAN ENERGY ADMINISTRATION ENERGY CONSERVATION POLICY — presented by Thomas Hunington, Director of Local Government Energy Administration.

THE REALTORS' ROLE IN ENERGY CONSERVATION — presented by Regional Vice President of the Natl. Assn. of Realtors.

NO CHARGE NO CHARGE

ALL ARE INVITED: Your largest single purchase and investment is a time and learn to DO IT WISELY!

For Registration information, call
at Center/Washtenaw Community College
483-2230

Schoolcraft will host 3 energy seminars

Schoolcraft College this fall will be the scene of three technical seminars on how to conserve energy in homes, industrial plants, schools and government buildings.

Audiences will be architects, building contractors, energy consultants, heating and cooling contractors, insulation contractors and other energy-related firms.

The community college's campus is one of ...

Myron Ferraby and from the Energy Research Institute of Michigan (ERIM), known in past years as the University of Michigan's Willow Run Laboratories.

Registration information is available from Schoolcraft's community ... office at ...

Energy conservation courses scheduled

A research facility in Ann Arbor yesterday announced a pilot program to educate energy related firms, small business and private citizens about the best methods of conserving energy resources.

Beginning this fall, industrial plant managers, engineers and others involved in energy use or studies in connection with the conservation of energy resources will be offered 10 introductory workshops, symposiums and technical workshops.

The workshops, to be sponsored by the non-profit Energy Research Institute of Michigan (ERIM), will draw from energy specialists from the University of Michigan and private industry.

While the program is open to businesses, the non-profit and individual firms will be offered principally to small energy-related firms as training and refresher courses for architects and heating contractors among others.

The program ... Technical Assistance ... is to bring small ... Southeastern Michigan.

The ERIM ... energy ... the ... ERIM ... and ... energy ... the community ...

... offering ... a ... energy ... and ... conservation with the ...

The cost of the courses and seminars, which will begin in September, will be based on the needs of each participating firm.

Further information can be had from the following local colleges which will host the sessions: Washtenaw Community College, Henry Ford, Macomb, Oakland, Monroe, Delta, Charles Stewart Mott, Schoolcraft, St. Clair, Washington and Wayne County.

The Science Beat

By Larry Buck

The Ann Arbor News, Sunday, October 30, 1977 D-15

SEMTAP Tackles Energy Problems

The Southeastern Michigan Technical Assistance Program (SEMTAP) is a community service program to be established in Michigan community colleges (including the Washtenaw Community College and the Ann Arbor Environmental Resource Center) by the University of Michigan's Energy Research Institute of Michigan (ERIM).

The program is designed to provide information on energy sources and energy conservation, based on local information, to local businesses and governmental officials. This is being done through seminars, many courses and technical assistance programs to prepare participants to implement energy conservation techniques taught in the training sessions.

It also is designed to train management on one of today's emerging problems for the nation's energy conservation service industry. Washtenaw Community College, like the other 10 community colleges in the program, has set up ... to conduct the program.

ERIM provides the back-up through its staff of experts in ... related to energy research, and its long-term energy sensing of buildings and heat loss with infrared scanning ...

segment traditional heating systems.

The SEMTAP program is designed to provide information on energy sources and energy conservation, based on local information, to local businesses and governmental officials. This is being done through seminars, many courses and technical assistance programs to prepare participants to implement energy conservation techniques taught in the training sessions.

It also is designed to train management on one of today's emerging problems for the nation's energy conservation service industry. Washtenaw Community College, like the other 10 community colleges in the program, has set up ... to conduct the program.

ERIM provides the back-up through its staff of experts in ... related to energy research, and its long-term energy sensing of buildings and heat loss with infrared scanning ...

FIGURE 10. SAMPLE PRESS COVERAGE OF SEMTAP

Television has been the least-used public relations medium so far, though it could easily be the most effective. Television coverage of the news conference aroused a lot of (short-term) interest in the program. Mott Community College, which has its own program on a local Flint station, has been able to use the medium to some extent. Two instructors from Wayne Community College appeared on Detroit public television to discuss SEMTAP and plug their forthcoming seminars. Much more could be done in this area, however.

3.1.3 Advertisements

Advertisements in local newspapers are probably the second most popular method for publicizing seminars. While ad campaigns are certainly effective and should be used to some degree, there is no evidence to show that very intensive campaigns result in an increased attendence that would justify the increased cost, especially for the small-businessman target audience.

3.2 SEMTAP Newsletter

Beginning in January 1977, a newsletter has been published monthly which reports on SEMTAP activities at each of the colleges and at ERIM. Judith Steeh, a staff member of the ERIM Communication and Information Center, is responsible for preparation and publication of the newsletter. The newsletter is distributed to a wide audience. At present about 1750 copies of the newsletter are distributed each month, mainly to those more or less directly involved with the program at the colleges or in state and federal agencies. Copies are also sent to various individuals and organizations around the country who are engaged in similar programs involving technology transfer.

Issues of SEMTAP newsletters distributed during the past year are included in Appendix A. Each month the newsletter summarizes activities at each college during the previous month and lists scheduled events for the next. It also contains articles on other meetings and conferences of interest, new sources of information, etc. that SEMTAP coordinators or their staffs might find useful.

Its major purpose is to help consolidate the various, rather far-flung elements of the program and facilitate communication between them on a regular, standardized basis. It is also being increasingly used by college presidents, members of Advisory Committees, and others to monitor activities at their college vis-a-vis other institutions. Feedback from the coordinators indicates that if a college is not mentioned in one issue, this fact frequently elicits a negative response from administrative heads ... though the obverse is not necessarily true.

3.3 SEMTAP Display

A SEMTAP audio-visual display was designed, fabricated, and delivered to each SEMTAP college in July-August 1977 (see Figure 11). The display includes a slide/tape presentation of the SEMTAP energy conservation program, technical information bulletins from NTIS and other federal agencies and material describing the SEMTAP program at each college. The objectives associated with the installation of these displays at the colleges are to promote the SEMTAP program and to establish the community colleges as local points of contact for technical assistance.

The display units were designed over a period of months late in 1976 by Design Craftsman, Inc. of Midland, Michigan. The units were ordered in December 1976 from the designer and delivery to ERIM was made in June 1977. LaBelle Industries slide/tape playback units were ordered early in 1977 and were delivered shortly thereafter. ERIM personnel delivered the finished units to the ten community colleges of the SEMTAP network by August 1977. The units are maintained by community college personnel.

The initial slide/tape presentation produced for the displays describes the SEMTAP program and explains its objectives. This presentation has been viewed by a large number of people in the colleges and at other locations. Other productions are envisaged for the future on such topics as the energy crisis; ways to cope with it; and solar energy.

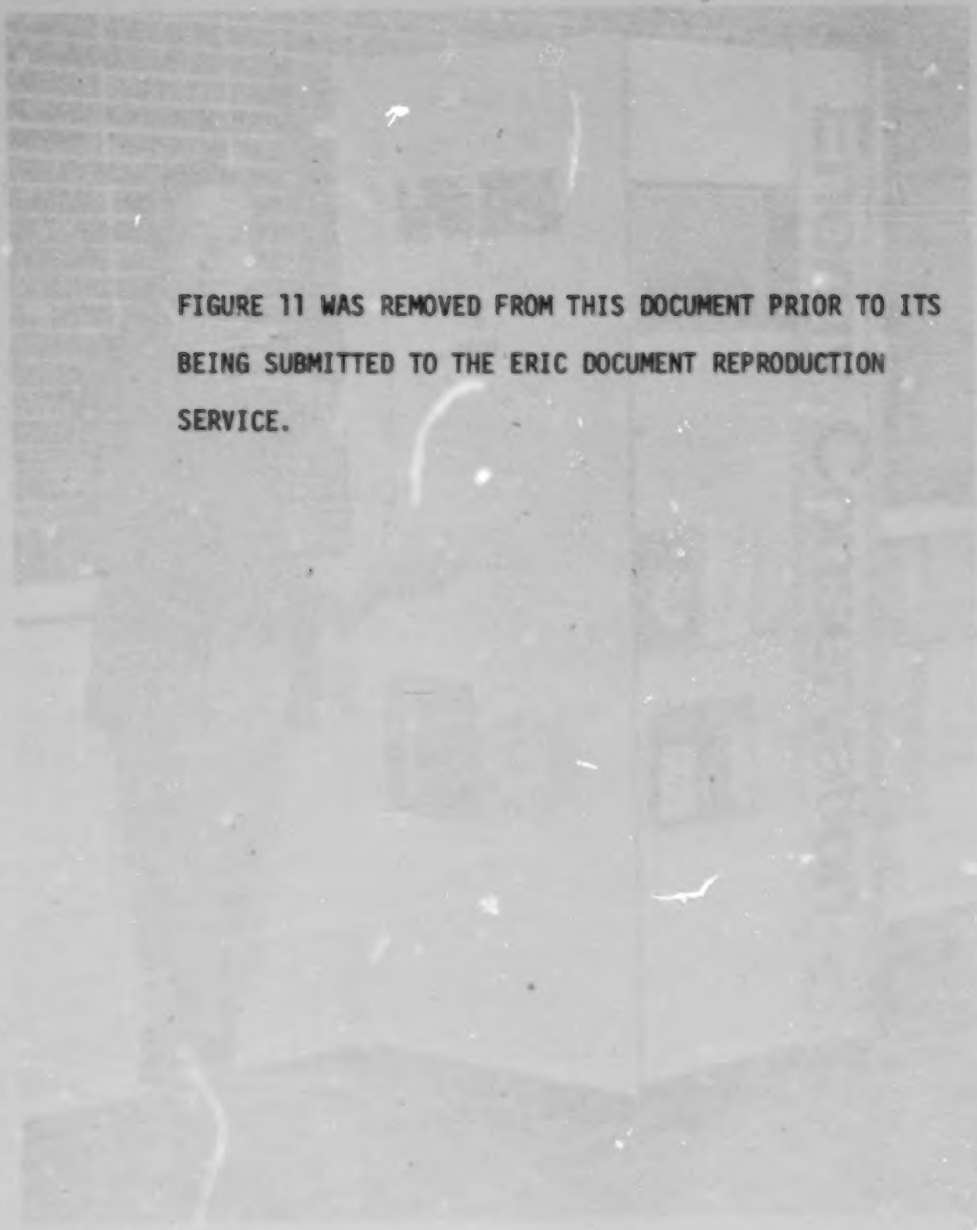

FIGURE 11 WAS REMOVED FROM THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO THE ERIC DOCUMENT REPRODUCTION SERVICE.

The only adverse critism we have heard so far is that the slide/tape show is too long. Apparently people are not willing to stand in a corridor, lobby, or crowded conference hall to watch a 6-1/2 minute program. Subsequent productions will, therefore, be shorter.

Brochures for distribution from the unit, initially supplied through ERIM, are now ordered by the colleges. The units and the audio-visual electronics package are not college property and remain part of ERIM's inventory.

Most of the SEMTAP colleges move their display units around the college campus and some have stationed them at fairs, shopping centers, and locations of community events. Printed materials available from the units are quickly exhausted when the unit stands in a more public place, indicating that they are an effective means of promoting the SEMTAP program.

3.4 Promotional Material

Flyers and one-sheet mailers have been the most common and one of the most effective means used to publicize SEMTAP meetings. Figure 12 shows a sample of recent flyers used to promote SEMTAP activities.

ERIM public relations staff generate promotional material and are available to the colleges on any level, from simply offering advice to producing and delivering the mailers for a specific college event. Most colleges, however, have preferred to produce their own material. As a result, there is a great range in quality, from typed material with hand-drawn visuals to highly professional-looking literature.

A problem that arose early in the program occurred when colleges occasionally failed to credit SEMTAP in their promotional literature. This has since been solved. ERIM supplied each college with a set of SEMTAP logo "rub-ons" for use in preparing their mailers.

Most of the material publicizing specific events is mailed by the colleges, using mailing lists obtained from professional organizations, voter registration lists, and the lists provided by Dun Marketing Company. On occasion, public libraries, college information desks, etc. have been used as distribution points, but this does not appear to be very effective. SEMTAP promotional material is also stocked in the display units. So far little substantive descriptive material has been produced in a form appropriate for general distribution.

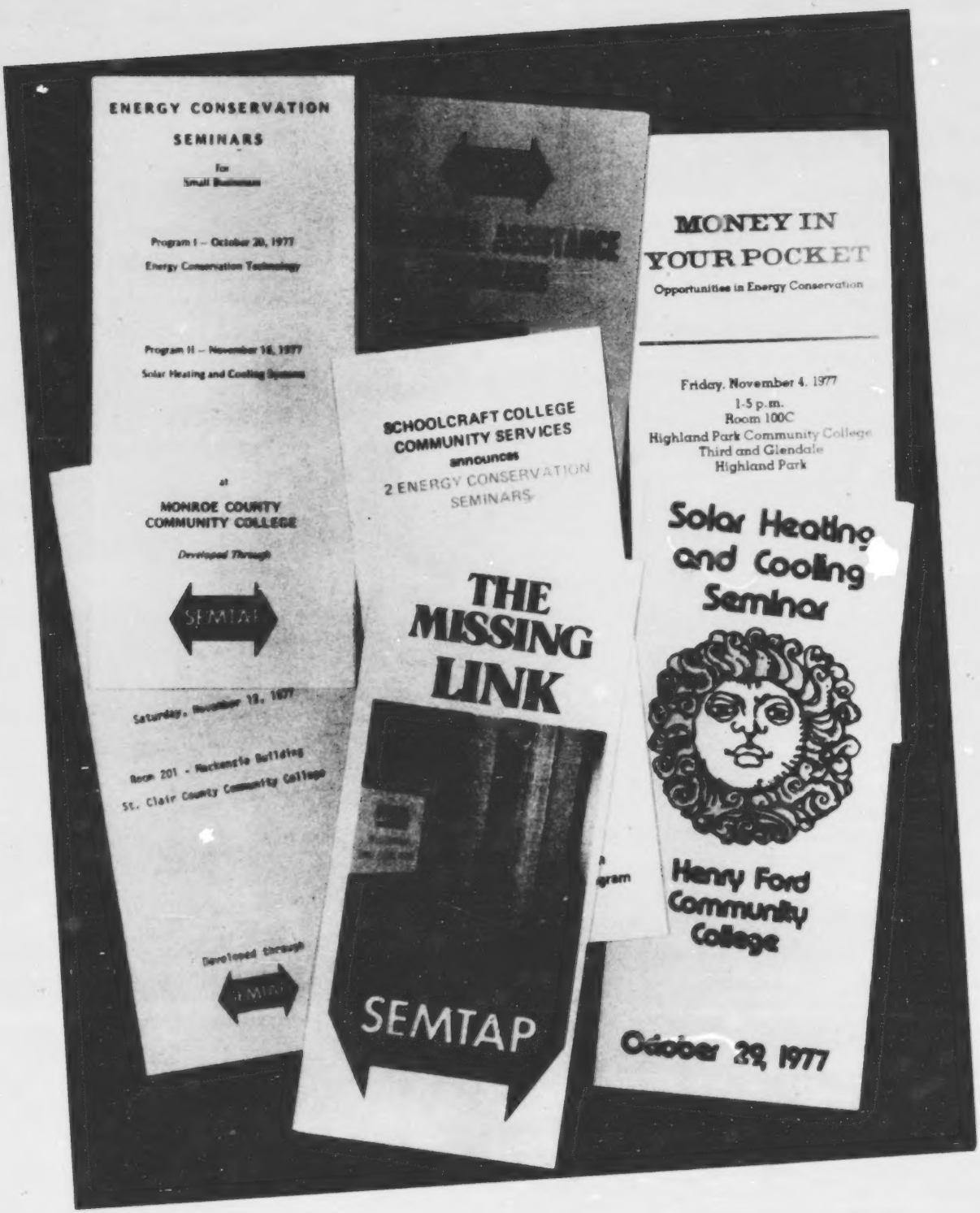
ENERGY CONSERVATION
SEMINARS
Program I – October 20, 1977
Energy Conservation Technology
Program II – November 16, 1977
at
MONROE COUNTY
COMMUNITY COLLEGE
Developed Through
SEMTAP
Saturday, November 12, 1977
Room 201 - Mackenzie Building
St. Clair County Community College
Developed through
SEMTAP
SCHOOLCRAFT COLLEGE
COMMUNITY SERVICES
announces
2 ENERGY CONSERVATION
SEMINARS
THE
MISSING
LINK
SEMTAP
MONEY IN
YOUR POCKET
Opportunities in Energy Conservation
Friday, November 4, 1977
1-5 p.m.
Room 100C
Highland Park Community College
Third and Glendale
Highland Park
Solar Heating
and Cooling
Seminar
Henry Ford
Community
College
October 29, 1977

FIGURE 12

4.0 TECHNOLOGY MARKETING

In order to develop a responsive program in technology transfer, it was first necessary to identify a set of business and industrial clients who need and are interested in technical assistance. Once this set had been defined by segmenting the market, activities were conducted to inform this market of the opportunities available to them through the SEMTAP program. In this section, the activities of the SEMTAP project in accomplishing these functions are described. As a result of direct mailing and follow-up efforts at developing the interest of small businesses, a program of seminars, training courses, and technical assistance was undertaken. This program is described in Section 5.

4.1 Segmenting the Market

Since large business establishments are generally in a position to support internal programs of technology transfer, SEMTAP's market for technology transfer consists primarily of small businesses. Within this market, two groupings of businesses may take advantage of SEMTAP's technology transfer program. One target is classified as energy conservation implementors---insulation contractors, builders, heating and cooling contractors, architects, energy consultants, etc. The other and larger target audience consists of all small businesses, since all businesses use energy in various forms and should be concerned with energy conservation practices to assure the availability of energy and to reduce the cost of energy in their operations.

Southeastern Michigan has thousands of firms who need and are interested in technical assistance. Obviously SEMTAP cannot service the full spectrum of firms desiring technical assistance. Our plan was to focus initially upon a manageable subset of potential clients whose needs are relevant to energy conservation. As the program develops, the set of clients to be serviced could be expanded in consonance with the program plan and evolving confidence in the methods of technology transfer.

A number of agencies, such as SEMCOG, SBA, and local Chambers of Commerce were contacted to determine the availability of data base information of business firms. It was determined that the best method of acquiring business information of the type needed for the SEMTAP program was via Dun and Bradstreet Marketing Service

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During FY 77 small businesses classified as potential implementors of energy conservation were selected as the target audience. The U.S. Department of Commerce publication, County Business Patterns 1974, was used for the initial classification of energy conservation implementors to be contacted in FY 77; Table 1.0 lists the number of such firms in the SEMTAP counties. Subsequent contact with D&B Marketing Service resulted in defining a total target audience of about 5,700 small business firms. (A list of these businesses was forwarded to G. Fatsinger at EDA in July 1977.) Table 2.0 lists these firms according to their SIC Code (Standard Industrial Classification Code).

In FY 78 ERIM intends to acquire a complete data base of all businesses in Michigan for use in the SEMTAP project. A subset of this complete data base would be all small businesses in the SEMTAP counties (about 62,000) as listed in Table 3.0. A complete data base will be useful in the future development and expansion of the SEMTAP project throughout the State of Michigan.

4.2 Matching Technology To Industry Needs

The purpose of the task to match technology to the needs of the 5700 business firms classified as energy conservation implementors was to (1) identify specific technology that would be appropriate for the SEMTAP training programs, and (2) improve the linkage of these firms to the NTIS technical information system. It is anticipated that the process of classifying local industry and matching their technology requirements with corresponding elements of the NTIS information system will aid small business firms to understand the NTIS system and how to acquire technical information on a continuing basis.

On August 1, 1977 a mailing went out to 5705 small business firms, based on mailing labels supplied by Dun's Marketing. The firms were asked to fill out a short questionnaire and return it to their local community college. A total of 111 responses was received from this mailing. The responses were grouped into eight basic occupational categories, as shown in Table 4.0.

TABLE 1.0

ENERGY CONSERVATION IMPLEMENTORS

SIC CODE	Description	Genesee	Jackson	Macomb	Monroe	St. Clair	Washtenaw	Wayne	Total
151	General building contractors	139	57	160	33	52	77	428	951
171	Plumbing, Heating, Air Conditioning	95	36	119	25	27	40	386	728
173	Electrical Work	49	26	100	7	17	33	264	496
176	Roofing	27	7	54	12	9	11	152	272
1,793	Glass & glazing work	4	21	*	*	*	*	27	52
651	Real Estate operators & lessors	115	24	120	29	*	61	869	1,218
653	Real Estate agents & managers	64	*	61	*	*	46	333	504
655	Subdividers & developers	17	*	17	*	*	*	46	80
891	Engineers & architectural services	35	14	69	14	11	45	178	366
	TOTAL	545	185	700	125	116	313	2,683	4,667

* Insufficient Information

Source: County Business Patterns - 1974 - Michigan

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TABLE 2.0

BUSINESSES CATEGORIES SELECTED FOR SPECIAL
TECHNICAL ASSISTANCE EFFORTS

SIC	Type of Business	Estimate Percent of Total
1511	General Building Contractors	13
1521	One Family Housing Construction	28
1522	Residential Construction	3
1531	Operative Builders	3
1541	Industrial Buildings & Warehouses	3
1542	Non-Residential Construction, n.e.c.	3
1711	Plumbing Heating and Air Conditioning	21
1731	Electrical Work	13
1793	Glass, Glazing Work	1
4222	Refrigerated Warehousing	.5
6531	Real Estate Agents, Brokers, Managers	3
6552	Real Estate Subdividers and Developers	2
8911	Engineering & Architecture Services	5

OTHER INTERESTING DATA

(1) Total of these businesses in the seven SEMTAP counties - 5705

(2) Estimated number of all categories in each county

Genessee - 10% or 558 such firms
Jackson - 4% or 225 such firms
Macomb - 17% or 977 such firms
Monroe - 2% or 128 such firms
St. Clair - 3% or 190 such firms
Washtenaw - 7% or 375 such firms
Wayne - 57% of 3252 such firms

TABLE 3.0 NUMBER OF SMALL BUSINESS ESTABLISHMENTS
AND POPULATION PER SEMTAP COUNTIES

			Number of Small Businesses by Size						
County	Population	Total (S.B.)	1 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	College(s)
Genesee	450,400	6,262	3,572	1,262	790	467	108	53	C.S. Mott
Hillsdale	40,000	630	386	101	81	39	13	10	Jackson
Jackson	147,100	2,470	1,366	481	323	206	59	44	Jackson
Macomb	669,600	9,408	1,326	1,254	900	279	124	20	Macomb
Monroe	126,500	1,437	851	286	162	89	30	19	Monroe
St. Clair	130,500	2,029	1,224	379	229	133	35	29	St. Clair
Washtenaw	256,400	3,840	2,040	807	511	323	106	53	Washtenaw
Wayne	2,536,700	36,862	19,715	7,121	4,897	3,361	1,152	616	Henry Ford Highland Park Schoolcraft Wayne
Total	4,357,729	62,938	30,480	11,691	7,893	4,897	1,627	844	10 Colleges
Total State	9,157,000								

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TABLE 4.0

TABULATION OF 1 AUGUST 1977 MAILING AND ASSOCIATED
DATA ON TECHNICAL INFORMATION PACKAGES THAT WERE SENT

Occupational Group		Number Responding
1. Remodeling / Kitchen Work / Appliance Sales		9
Distribution:	Henry Ford	2
	Macomb	2
	Mott	1
	St. Clair	1
	Schoolcraft	1
	Washtenaw	1
	Wayne	1
2. Mechanical Contractors / Heating, Cooling		23
Distribution:	Henry Ford	1
	Highland Park	1
	Jackson	2
	Macomb	8
	Monroe	2
	Mott	2
	Schoolcraft	5
	Washtenaw	1
	Wayne	1
3. Real Estate		8
Distribution:	Highland Park	1
	Jackson	1
	Macomb	1
	Schoolcraft	1
	Washtenaw	1
	Wayne	3
4. General Contractors		27
Distribution:	Henry Ford	2
	Jackson	1
	Macomb	3
	Monroe	2
	Mott	8
	St. Clair	2
	Schoolcraft	4
	Washtenaw	4
	Wayne	1

5. Electrical Contractors.....15

Distribution:		
	Henry Ford	2
	Jackson	1
	Macomb	4
	Monroe	1
	Mott	4
	Schoolcraft	3

6. Engineers / Architects.....12

Distribution:		
	Macomb	1
	Mott	2
	St. Clair	2
	Schoolcraft	3
	Washtenaw	3
	Wayne	1

7. Engineers - non-architectural..... 4

Distribution:		
	Henry Ford	1
	St. Clair	1
	Washtenaw	1
	Schoolcraft	1

8. Misc. (conservation firm, alarm sales, paper distributors, land planning, trailer sales, insulation, excavation, electronics repair, teacher, masonry).....13

Distribution:		
	Henry Ford	1
	Jackson	1
	Macomb	2
	Mott	1
	St. Clair	2
	Schoolcraft	2
	Washtenaw	2
	Wayne	2

TOTAL RESPONSE: 111

For the individual businesses responding to the direct mailing, technical assistance packages were prepared at ERIM and forwarded to the appropriate colleges which sent them out with a cover letter by the college coordinator. The packages were tailored to the individual interests of the eight groups. Some core materials were included in all eight packages, such as information sheets from the Michigan Energy Administration and a booklet from the Economic Development Administration. Other more specific materials that were suited to one group or another were added to the core material. Altogether, material supplied by EDA, ERDA, FEA, the National Heating and Cooling Information Center, General Motors, local utility companies, NASA, the Michigan Energy Administration, and Owens-Corning Fiberglass was distributed.

The mailings to the 5705 small business firms described a program of seminars, training courses, and technical assistance in energy conservation and solar heating and cooling planned for each of the colleges. A further discussion of this program is presented in Section 5.

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5.0 TECHNOLOGY TRANSFER ACTIVITIES CONDUCTED IN FY77

In previous sections, project activities leading to organization of the SEMTAP network, public relations efforts, and defining the market for technology transfer have been discussed. In this section, the project activity directly devoted to technology transfer is discussed.

Since an accurate evaluation of the information dissemination and technical assistance program is important both to the SEMTAP staff in improving its future programs and to EDA in evaluating the program accomplishments, a program analysis and evaluation activity was included as an integral part of the technical transfer activities. Evaluation procedures are discussed in Section 5.1

The programs devoted to information dissemination and technical assistance were developed in two separate phases. In the first phase (Section 5.2), conducted from October 1976 through September 1977, initial activities were undertaken at each of the colleges to gain experience with the most effective methods of working with business and professional personnel, and to stimulate the market. Following this phase, a second phase was initiated in which an extended program was organized consisting of a coordinated series of seminars, training courses, and technical assistance at each of the colleges (see Section 5.3).

5.1 Evaluation Procedures

The evaluation work of ERIM has been developed to serve two vital areas. The first area includes those things that make the classroom activity fit the personal needs of the participants. For example:

- Is the material being presented with the right level of complexity?
- Should college credit be given for the classes?
- What is the best time of day or week for the participants to attend class?
- What energy conservation topics are most important to the participants?

The second area is related to judging that class of actions that the participants take to conserve energy. Here we determine the effectiveness of our program of education and technical assistance in helping the small businessperson conserve energy. We monitor changes in energy conservation attitudes of the participants and keep track of the programs and actions that were instituted by the participants or their companies, since their exposure to our programs.

We rely principally on questionnaires to provide the information we need for evaluation. Tables 5 and 6 are two examples of our questionnaires; the first was developed for the first area of evaluation mentioned above and the second for the second area of evaluation. We have collected data from seminar participants at seven community colleges, which gives us a firm base for evaluating future data collections and will permit the necessary measure of change in energy conservation practices in the small business community.

We continually evaluate the effectiveness of our questionnaires and make changes when necessary. Table 7 shows our most recent questionnaire that was developed to provide a more sensitive measure of the participants' attitudes about the importance of energy conservation. This questionnaire relates the attitude assessment to a set of energy conservation policy actions and the participants' choice gives us a much better determination of the participants' sense of urgency in energy conservation matters.

Our evaluation method, while quite successful and continually valuable, is expected to give way in the near future to an evaluation plan that has been developed jointly by the Michigan Energy Extension Service and SEMTAP. The planned new evaluation program is designed to make additional determinations of the successes gained by the SEMTAP program and aid in making recommendations to ERDA in their development of national conservation funding guidelines.

5.2 Phase I - Technology Transfer Activities

In order to initiate the SEMTAP technical program, publicize the program in the local communities, and provide each of the colleges with early experience in SEMTAP activities, an initial activity in technology transfer was initiated at each of the colleges during the first year. This took the form of seminars, mini-courses and presentations to local organizations. In addition, opportunities for providing technical assistance were encouraged.

5.2.1 Energy Conservation Seminars

As stated previously, the long range objective of the EDA/SEMTAP program is to create a new energy conservation service industry in Michigan. To accomplish this the SEMTAP program has been directed toward energy conservation

TABLES 5-7 WERE REMOVED FROM THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO THE ERIC DOCUMENT REPRODUCTION SERVICE.

implementors. Seminars, training courses, and technical assistance activities have been conducted to provide basic training to enable small business firms to acquire skills in energy conservation technology to expand their business opportunities and thus create jobs.

A number of seminars were conducted at the various colleges to present topics of interest in energy conservation and alternate energy. These were generally well attended and well received and were an important mechanism for informing the target audience of energy conservation implementors concerning the existence of SEMTAP, its objectives, and the services offered. Table 8 presents a summary of the seminars conducted during the first phase of the SEMTAP program.

In addition to formal seminars, a number of opportunities presented themselves for SEMTAP personnel to discuss energy conservation and alternate energy technology with selected audiences. Specifically, presentations were made to groups from the following organizations:

Plymouth Chamber of Commerce
Monroe County Rotary Club
Monroe County Association of Home Builders
Washtenaw County League of Women Voters
Ypsilanti Democratic Party Members
Troy School System
Meeting of Communicy College Presidents at Traverse City
Flint Energy Task Force
City of Ann Arbor, Department of Community Development
Lutheran Church, Missouri Synod in Ann Arbor

TABLE 8 - ENERGY CONSERVATION SEMINARS

SEMINAR LOCATION	DATE	TITLE	SUBJECTS	ATTENDANCE
Washtenaw	28 Oct. 1976	Energy Seminar for Michigan Building Industry	. Energy Conservation . MTIS	15
Jackson	17 Feb. 1977	Energy Seminar	Energy Conservation How	85
Mott	29 Mar. 1977	Flint Energy Update	. Solar Energy . Discussion of 90-75 Code . Instrumentation for Measuring Heat Loss	200
St. Clair	16 Apr. 1977	Energy Conservation Seminar	. Energy Conservation . Solar Energy . MTIS	35
Monroe	20, 21, 25 Apr. 1977	Home Cooling for Summer Comfort	Energy Conservation Applied to Home Cooling	20
Mott	5 May 1977	May Institute	Energy: . The State and National Perspective . Alternatives within Your Group . Solar Energy at Work . The Inevitable Future: Morality of Energy Conservation . Challenge for the Future	500
Macomb	7 May 1977	Solar and Energy Conservation Seminar	. Energy Conservation . Solar Energy	400
Henry Ford	21 May 1977	Heat Pump Seminar	Heat Pump Technology, Products & Application	125
Macomb	4 June 1977	Energy Conservation	ASHRAE 90-75	

5.2.2 Home Weatherization Workshops

Home weatherization workshops were conducted at Monroe, Washtenaw, Highland Park, and Wayne County Community Colleges. The purpose of these workshops was to create an energy conservation awareness on the part of homeowners, assist them in performing an energy audit of their home, and encourage them to implement energy conservation measures. The attendance at these workshops was relatively low; however, future efforts, perhaps in conjunction with local utilities should be continued to stimulate the homeowners to implement energy conservation.

5.2.3 Energy Conservation Audits of Schools and Apartments

In work directly related to the SEMTAP program, ERIM has conducted a number of projects involving energy audits of school or apartment buildings resulting in recommendations for energy conservation practices.

The following list indicates the college in whose area the work was done:

The Ypsilanti School District contracted with ERIM/SEMTAP to perform an energy audit of several school buildings in the Ypsilanti School District and prepare an energy conservation five year program. A local engineering consultant was used to assist in this effort and acquire energy conservation skills while performing the work. Future efforts will be directed toward school administrators to encourage them to develop conservation plans. This set of institutions represents a very large market for implementors to be trained in the SEMTAP program. (Washtenaw)

A preliminary survey was conducted of four representative school buildings in Highland Park to observe energy utilization practices and to obtain inputs needed to generate recommendations for energy conservation. The possibility of substantial energy savings was indicated. (Highland Park)

A preliminary survey was conducted of Downes Manor, a multilevel apartment complex which provides subsidized housing for senior citizens in Highland Park, to generate recommendations for further action leading to energy savings and conservation. Substantial potential energy savings were indicated. (Highland Park)

An energy study of the University of Michigan Ann Arbor campus determined the applicability of advanced infrared technology to the identification and measurement of heat and energy losses. The program was in two phases: (1) airborne collection of data using a multispectral scanner, and (2) ground collection of data using thermal infrared imagery. The program was supported by U of M funds. The results were positive for both phases. (Washtenaw)

5.2.4 Development of Thermal Map of City of Jackson

Through cooperative efforts between Jackson Community College and ERIM, the Consumers Power Company, headquartered in Jackson, Michigan, contracted with ERIM to fly its airborne thermal scanner over 25 square miles of the City of Jackson. (see insert on following page)

The purpose of this effort was to make a color coded thermal map of residential areas which depicts the status of roof insulation of homes. This work was successful and resulted in further stimulation of the homeowners market for energy conservation implementors. Future work of this type may be sponsored by Michigan utilities and/or the State government.

5.2.5 Technical Assistance

SEMTAP responded to a number of requests for direct technical assistance in the area of energy conservation and alternate energy systems. These are listed in Table 9.

5.3 Phase II - Technology Transfer Activities

The Phase I SEMTAP activities described in the previous section were of major value both in stimulating the market for technology transfer in the SEMTAP area and in providing early experience to the SEMTAP technical and administrative staff in providing technology transfer services.

COMMUNITY COLLEGE	INDIVIDUAL OR FIRM	DATES	REQUEST	TYPE OF ASSISTANCE PROVIDED
Mott C. C.	Paul Asperger	Jan - May 1977	Assistance in evaluation and analysis of a windmill design.	Design analyzed, economics and potential of design evaluated and discussed with client.
Monroe C. C.	Gladwin Sales Mr. James Sears 14500 Eureka Rd. Southgate, MI 48195	Nov '76 - May '77	Assistance in evaluation of greenhouse and industrial insulation materials and design.	New energy conserving greenhouse designs analyzed and discussed. Effectiveness of insulating materials (fiberglass vs glass) etc. evaluated. Reflective material coatings for industrial energy conservation applications and plastic for residential energy conservation evaluated. Literature search for energy conserving greenhouse designs performed.
Schoolcraft C. C.	Smith Horton	April 1977	How to modify building to reduce energy consumption.	Building design discussed energy loss estimated and options to reduce energy presented. Insulation types and costs discussed and best type for building determined.
Macomb C. C.	D & G Heating & Air Conditioning	May 1977	What is solar energy status and where can they get assistance in energy management capability.	Reviewed solar energy and general energy situation with company. Encouraged them to become active in energy management and offered assistance in any way possible.
Henry Ford C.C.	Construction Video Co. P. O. Box 926 Dearborn, MI 48120 Danny Price	Oct - Dec 1976	Determine technique to measure status of reclaimed area after utility lines installed.	Technical method for measuring location of objects off TV screen developed and explained to company. Physical problems related to this application solved.

TABLE 9. TECHNICAL ASSISTANCE

SEMTAP
Southeastern Michigan
Technical Assistance Program

COMMUNITY COLLEGE	INDIVIDUAL OR FIRM	DATES	REQUEST	TYPE OF ASSISTANCE PROVIDED
Washtenaw C.C.	Thermometrics	Jan - Mar 1977	Start an infrared energy conservation service.	Infrared physics and instrumentation discussed with client and business potential explained. Technical assistance for securing loan and clients provided.
Highland Park C.C.	Downes Manor Apts. 13725 John R Highland Park, MI	Jan - Feb 1977	How can they reduce energy consumption.	Apartment building inspected and evaluated. Measurements made and methods to reduce energy consumption outlined.
Wayne County C.C.	Greenhouse Growers Assn.	December 1976	How can they reduce energy expenses.	Technique for evaluating energy conservation procedures developed and explained to growers.
St. Clair County C.C.	Diamond R, Inc.	April 1977	How to evaluate home energy loss and savings by installing their product.	Procedure for performing home energy balance described to client. Workbook material for evaluating savings from insulation installation presented to client.
Jackson C.C.	Clarence Ziegler FLC, Inc. 1700 Wildwood Ave. Jackson, MI 49202	April 1977	How to design methanol producer for sale to individuals	Literature search on methane and methanol production for individual use conducted. Technical problems discussed with client and information on designs provided to him.
Washtenaw C.C.	Mrs. Marie Singer	March 1977	How to incorporate energy conservation ideas into new house design.	Information on energy conservation in construction provided to client.
Mott C.C.	Mr. Alex Graham	February 1977	Same as above	Same as above

TABLE 9. TECHNICAL ASSISTANCE

COMMUNITY COLLEGE	INDIVIDUAL OR FIRM	DATES	REQUEST	TYPE OF ASSISTANCE PROVIDED
St. Clair C.C.	C. F. Pillsbury & R. W. Bennett Architect & Designers	April 1977	Energy conservation in new building design.	How to incorporate energy conservation into new building design and how to evaluate economics associated with energy conservation described to client and information and booklets furnished.
St. Clair C.C.	Mrs. Garnet W. Lozen	April 1977	How to reduce energy consumption and drafts in family-run tool & die business.	Commercial building insulation procedures described techniques for evaluating energy loss due to air infiltration defined, and information and booklets provided to client.
	Mr. James Limbacher A-V Librarian Henry Ford Centennial Library 16301 Michigan Ave. Dearborn, Mi 48126	May 1977	He expressed interest in energy films to D. McCreery. We wrote him concerning films we knew of, sources of bibliographies, and sent an ERDA film catalog.	
	Mr. John Rooney Municipal Building Cottage Street Bar Harbor, Maine 04609	May 1977	Working as a VISTA volunteer in energy conservation for homeowners. He expressed interest in our work in infrared diagnostics. Sent him 2 reports, NTIS bibliographies, and numerous brochures on energy conservation.	
ERIM	Eugene Eccli Design Alternatives 1312 18th St., N.W. Washington, DC 20036	June 1977	Requested a search on residential energy conservation technologies that especially dealt with appliance retrofit. He needed information to assist with a government contract he was doing.	
	Mr. Ron McClurg Des Moines Area Community College 2006 Ankeny Blvd. Ankeny, Iowa 50021	August 1977	Requested more information on the program, especially concerning teaching materials we use. Sent him an assortment of brochures as well as a list of NTIS publications we use for instruction.	

TABLE 9. TECHNICAL ASSISTANCE

COMMUNITY COLLEGE	INDIVIDUAL OR FIRM	DATES	REQUEST	TYPE OF ASSISTANCE PROVIDED
	Dr. Robert V. Kovach Southwestern Michigan College Cherry Grove Road Dowagiac, MI 49047	August 1977		Requested further information on SEMTAP and the materials we use for teaching. Sent him representative brochures and bibliographies.
Jackson C.C.	Gary Atkinson Hayes Albion	September 1977		Firm makes fans for cars and is generally seeking more efficient design. Came to us via Chuck Gass, and sent to Bob Hanlin for consultation and DIALOG search. More contact expected.
Schoolcraft C.C.	Mr. Ostrowski	September 1977		Client requested technical assistance that involves the acquisition of a new energy efficient furnace for a 1500 sq. ft. building and help in planning for additional insulation.
Henry Ford C.C.	Duane Mackey	September 1977		Wanted to speak to an engineer regarding setting up an infrared diagnostics business. Wanted to come to ERIM and look through SEMTAP information resources for pertinent documents. More contact expected.
Washtenaw C.C.	Ann Arbor Energy Savers	September 1977		Interested in developing energy diagnostics business using thermovision technology. Advised him on available equipment and its use, and helped him evaluate business potential for this type of venture.
Macomb C.C.	Bill Botsford	September 1977		Needed assistance in integrating a heat pump into a warehouse that must be temperature and humidity controlled.
Washtenaw C.C.	Mr. Ben Yekheal 715 Hill St. Ann Arbor, MI	September 1977		Had a solar energy invention and wanted some assistance from the government in further developing it. We referred him to proper agency (ERDA) and proper department for inventions within ERDA.

TABLE 9. TECHNICAL ASSISTANCE

COMMUNITY COLLEGE	INDIVIDUAL OR FIRM	DATES	REQUEST	TYPE OF ASSISTANCE PROVIDED
	Paul Gerhart	October 1977	Wants to establish an IR diagnostics business. We will meet with him this week to discuss available equipment and market potential for this type of business.	
Jackson C.C.	Mr. John Dabbert 408 Wildwood Ave. Jackson, MI 49201	October 1977	Requested brochures that he could distribute at a real estate seminar. We sent him SEMTAP and other conservation materials.	
	Mr. Floyd A. Burkel, Jr. 3011 Sprowl Rd., #1 Louisville, KY 40299	October 1977	Requested specific documents noted in the SEMTAP Newsletter. Referred him to proper office at ERDA to satisfy his request.	
Washtenaw C.C.	Mr. Melvin Schafer Lutheran Church Geddes Rd. Ann Arbor, MI	October 1977	He was interested in more information about SEMTAP and expressed a possibility of active participation by local Lutheran church. He visited us, spent some time in the information center reviewing literature, and took many brochures with him. He would like to visit again.	
	W. Chen NASA	October 1977	Requested materials that were used by us for a course. We sent them.	
Washtenaw C.C.	Bruce J. Malcolm 6600 Portage Lake Rd. Munity, MI. 49259	October 1977	Requested information on design and construction of solar heating systems. Sent appropriate information brochure.	
Washtenaw C.C.	Norm Fischer 826 Duncan Ann Arbor, MI 48103	October 1977	Sent information on rules of thumb for solar heating system design.	
Washtenaw C.C.	Mr. W. A. Blikken 952 S. Grove Rd. Ypsilanti, MI 48197	October 1977	Sent information concerning the Michigan energy code.	

TABLE 9. TECHNICAL ASSISTANCE

SEMTAP
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The public relations efforts, culminating in the SEMTAP news conference in June 1977, and the direct mailing of SEMTAP information to 5,700 small business energy implementors in the SEMTAP area resulted in the initiation of the Phase II activities of the SEMTAP program. In this section, the program of seminars, training courses, and technical assistance is described. Since this program is currently in progress, the description of the program and the assessment of its effectiveness are necessarily incomplete.

5.3.1 Energy Conservation Seminars

The SEMTAP program for energy conservation implementors includes a series of introductory seminars, follow-up mini-courses for training purposes, and continuing technical assistance to program participants.

Two seminars are being conducted at each of the SEMTAP colleges (except Highland Park, where the two seminars have been combined into one). One series of seminars is concerned with energy conservation technology and the other with solar heating and cooling systems. Each seminar introduces SEMTAP, discusses the energy situation in Michigan, provides a synopsis of a specific technology to help small business gain an overview of the technical and economic problems involved, and provides an introduction to the subsequent training sessions and technical assistance.

Figure 13 is an example taken from the brochure material sent out by Wayne County Community College and is typical of the seminar arrangements, costs, and technical content of both the solar heating and cooling and the energy conservation seminars.

The seminars were publicized by a wide variety of means. These included:

- More than 5,000 brochures distributed to energy conservation implementors in the SEMTAP area, as provided by a Dun & Bradstreet listing for selected SIC codes, as described in Section 4.2.
- Individual brochures distributed by each college in its own area (see Figure 12).
- Ads in local newspapers
- Publicity through local radio and TV programs.
- Notification of libraries, college centers, and other local organizations.
- Assistance from the SEMTAP Advisory Committee.

FIGURE 13 WAS REMOVED FROM THIS DOCUMENT PRIOR TO ITS BEING SUBMITTED TO THE ERIC DOCUMENT REPRODUCTION SERVICE.

5.3.1.1 Solar Heating and Cooling Seminars

The series of solar seminars was conducted from September 28, 1977 to December 3, 1977. Each of the solar seminars followed a similar pattern, including introductory remarks describing SEMTAP, a discussion of the energy problem, and presentations on solar radiation, systems and components, analysis and design, and business opportunities. The presenters included both ERIM staff members and instructors from the various SEMTAP colleges. In general, presentations at each college were made by members of that college's staff, but in some cases members of the staff of one college gave presentations at another college (see Table 10).

A questionnaire was distributed to each audience and the returned questionnaries were analyzed to determine the audiences background, interests and attitudes. In general, a major portion of the audience included individuals with present or potential business or professional interests in solar heating and cooling systems. However, the subject was of sufficient interest that it attracted many people with more general interest in solar energy, including people who are considering do-it-yourself projects or having solar heating systems installed in new homes. For further information on questionnaire results, see Section 5.3.1.3.

5.3.1.2 Energy Conservation Technology

The energy conservation seminars at each college followed the same general pattern as the solar energy seminars, with the series running from October 6, 1977 to January 21, 1978. The following individuals prepared or presented material for these seminars at the various colleges:

Gene Thomas (ERIM)
John Lesko (Schoolcraft)
Richard Reinholt (Schoolcraft)
James Martini (Henry Ford)
Ed Garvin (Highland Park)
Rolf Anselm (C.S. Mott)
Patrick Miller (Jackson)

The experience with these seminars was similar to that noted for the solar energy seminars. The audience was varied, but contained many small business implementors. Questionnaires were distributed, and the results are given in Section 5.3.1.3.

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Technical Assistance Program

TABLE 10

SOLAR ENERGY SEMINAR STAFF

Solar Energy Seminar Staff

Irvin J. Sattinger (ERIM)

Donovan McCreery (ERIM)

Sam Ajiri (Wayne

William Toothacker (Wayne)

Eugene Yehl (Consumers Power Co.)

Dennis Saturnino (C.S. Mott)

Dwight Hinds (Washtenaw)

Milton Pool (Washtenaw)

John Xerri (Henry Ford

James Martin (Henry Ford)

Michael Davis (Henry Ford)

John Cates (Highland Park)

John Lesko (Schoolcraft)

Ron McBride (Schoolcraft)

William Cooper (Macomb)

5.3.1.3 Seminar Analysis and Evaluation

In order to obtain information on the background, interests, and attitudes of the people attending the seminars, a questionnaire was distributed at each seminar and data from the completed questionnaire were analyzed by the Evaluation Group at ERIM. In this section, major conclusions reached from the analysis of the questionnaires are summarized.

5.3.1.3.1 Energy Conservation Attitudes

Attitudes concerning the importance of energy conservation are presented in Figure 14 which is based on responses from six seminars at four colleges. More than half the responses rate energy conservation as extremely important, and the average response on a scale of 1 to 10 is 9.1.

Attitudes concerning energy conservation are also indicated by responses to the question of preferred actions to motivate people to use less energy. As indicated in Table 11, first preference is for providing financial incentives to people who are taking energy saving actions, with second preference for convincing people to save energy. There is some preference for stiff measures involving taxes or rationing, but practically no sentiment for a policy of drift.

5.3.1.3.2 Energy Conservation Seminars

At the Schoolcraft energy conservation seminar, all of the participants had attended high school, and 65% attended college. Thirty percent of the responses indicated that the participant had worked in energy related areas less than two years, while 47% had worked in energy related areas over 10 years. Seven comments were made, of which four were favorable and three were critical or suggested changes.

At the Washtenaw County seminar, the participants' comments were mixed. Thirty two of 63 comments were favorable. The remaining comments suggested ways in which the presentations could have been improved or commented on steps needed to improve the energy situation.

5.3.1.3.3 Solar Energy Seminars

The composition of the audience was extremely varied, but the great majority of the audience are involved in occupations which are related to solar heating and cooling system design and construction. The interest of the audience is indicated to some extent by answers to questions on present and possible future involvement in solar energy utilization systems.

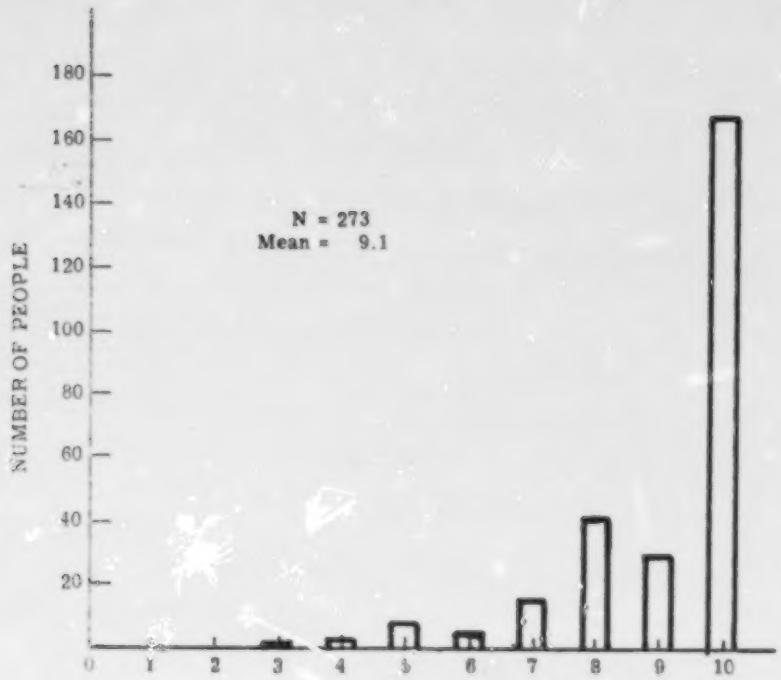

FIGURE 14. IMPORTANCE OF ENERGY CONSERVATION
0 -Not Important
5 - Important
10 - Extremely Important

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TABLE 11 - ATTITUDES CONCERNING ENERGY CONSERVATION MEASURES

The importance of energy conservation probably warrants some action aimed at getting everyone to use less energy. Some actions proposed are:

1st	2nd	3rd		
0	0	2	1.	Leave things alone, the problem is not bad enough.
11	15	30	2.	Present the facts and let the people respond as they see fit.
37	54	16	3.	Initiate a program to convince and persuade people to save energy.
72	28	10	4.	Provide tax breaks, lower interest rates on mortgages and auto loans and other incentives to people who take energy saving actions.
2	16	23	5.	Impose enough tax on energy to bring about the desired energy savings.
3	3	16	6.	Ration energy. Allot specific amounts of energy sources to each user and never let people have more than the government allows.
				Which of these actions would you take?

No response - 9 -

For the Wayne, Mott, and Jackson solar energy seminars, 53 of 294 responses (18%) indicated that the individual or his company work with solar energy systems of some type. For Mott and Jackson only, 171 of 201 responses (85%) indicated that the participant hopes to become involved in solar energy systems in the future, showing an expanding interest in solar technology.

In addition to the responses to multiple choice questions, many of the participants added written comments concerning their reaction to the material presented. It is hard to characterize these responses precisely, but some general reactions can be given. At Wayne, of ten responses, six were favorable; the remainder asked for more information or suggested changes in content or form of the seminar. At Jackson, 43 participants responded. Of these, 20 made favorable comments. At Mott there were 24 comments, of which 13 were favorable.

The comments included suggestions for increasing or decreasing the level of detail with which certain topics were presented, including topics not covered, comments on slide legibility, requests for handout material, and requests for specific information on specific topics.

5.3.1.3.4 Preferences on Meeting Times and Technical Content

Table 12 summarizes the attitudes of the persons attending eight seminars with respect to their preference for meeting times, desired technical content and detail of presentation, and their interest in attending a follow-up mini-course. In broad terms, the following conclusions can be derived from this table:

- Weekday evenings are definitely preferred by most attendees.
- The level of detail of the seminars was generally satisfactory but a significant fraction of attendees preferred more detail for the solar seminars.
- A substantial majority of the attendees are interested in attending the mini-courses. (At Jackson Community College, which has already initiated its first mini-course on solar energy, about 90 people are taking the mini-course with additional people on a waiting list.)

	Washtenaw Realtors	Jackson Solar	Mott Solar	Schoolcraft Conservation	Flint Update	Monroe Conservation	Washtenaw Solar	Wayne Solar
Best Meeting Time	Weekday Daytime	Weekday Evening	Weekday Evening	Weekday Evening	Weekday Evening	Weekday Evening	Weekday Evening	Weekday Evening
Material is Relevant	98%	94%	94%	100%	100%	100%	88%	94%
Level of Detail Just Right	72%	57%	42%	59%	65%	46%	33%	68%
Needs More Detail	26%	33%	58%	6%	43%	43%	57%	30%
Don't Need to Keep Up With New Energy Technology	2%	33%	23%	18%	5%	4%	29%	22%
Will Attend Mini-Course	79%	74%	92%	82%	-	68%	73%	-
Two Most Requested Subjects	Conservation Solar	Solar Design Solar Heating	Solar Design Solar Hot Water	Insulation Solar	Solar ASHRAE			

TABLE 12

5.3.2 Energy Conservation Training Courses

With the successful completion of the solar energy seminars at each of the SEMTAP colleges, planning was initiated for a series of training courses on the same subject oriented toward small business implementors of energy conservation or alternate energy technology. To accommodate these training sessions to the activities of the community colleges, it was planned to structure these training sessions as eight week lecture courses with one hour college credit being given.

Jackson Community College decided to begin its training course shortly after the seminar was held in order to take advantage of the interest generated by the seminar. The seminar was held on October 5 and the mini-couse began on October 26.

The attendance at the seminar was about 215, and approximately 90 people signed up for the mini-course, the majority of them having attended the seminar. A waiting list of about 20 people may be accommodated in a follow-up mini-course. Because of the large number of students, the mini-course was organized into two eight-week sections, one held on Wednesday evenings from 7 to 9 p.m., the other on Monday evening from 7 to 9 p.m. Table 13 indicates the topics covered in each section.

The course content has been selected to be of primary value to small businessmen or energy technicians who may consider becoming actively engaged in the solar energy heating and cooling business. However, the material will also be of interest and value to students considering do-it-yourself projects. The course attempts to provide sufficient theory to enable the student to understand the principles of solar heating and cooling systems, and practical information of direct use in designing, installing, and maintaining these systems.

Early results indicate that these mini-courses are meeting the interests of the students. As indicated by the questionnaires returned from the seminar, the students include a diversity of occupations and interests. Some of them have already gained experience in solar heating and cooling systems through extensive reading or through preliminary planning of solar energy utilization projects.

The other training sessions to be presented by the SEMTAP colleges are planned for early in 1978. The planning for these sessions is already underway. It is expected that the experience gained from the Jackson County mini-course will be extremely helpful in this planning process.

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TABLE 13

SOLAR HEATING AND COOLING MINI-COURSE
JACKSON COMMUNITY COLLEGE
8 Meetings; 16 hours; 1 credit hour

I. Background (Sattinger)
- U.S. energy demand and supply
- The role of solar energy
- Solar radiation
- Michigan climate

II. Solar Heating and Cooling Systems (Yehl)
- Space heating and cooling, water heating, pool heating
- Air and water systems
- Annual Cycle Energy Systems
- Heat pumps

III. Solar Components (Sattinger)
- Collectors, storage, transport, controls, etc.

IV. Solar Components (Sampson, Vandermade)
- Buying components and systems
- Standards and warranties
- Building codes
- SEMTAP resources for information dissemination

V. Installation, Operation, and Maintenance (Yehl)
- Structural, mechanical design, materials, scheduling
- Retrofit and new construction

VI. Analysis and Design (Sattinger)
- Design procedures (house heating load, solar component sizing)
- Cost analysis
- Computer design procedures and availability

VII. Architectural Concerns (Yehl)
- Architectural design considerations
- Passive designs
- Active passive designs

VIII. Wrap-up (Sattinger)
- Business opportunities
- Question and answer session
- Evaluation questionnaire

5.3.3 Technical Assistance

At the seminars and in the ensuing training sessions, the audience is informed of the possibility of obtaining technical assistance form SEMTAP in the subject areas discussed. Experience at the seminars and early experience with the Jackson Community College training session indicates that the participants have a number of specific interests and many of them would like further information on one or more topics related to the presentations. If these questions can be answered directly, the lecturers attempt to do so. In other cases, the questions require further discussion and technical analysis. On the basis of this experience, we believe that a number of opportunities for providing technical assistance will result from the training sessions discussed in Section 5.3.2.

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6.0 CONCLUSIONS AND RECOMMENDATIONS

The first year's experience has so far confirmed the basic concept of achieving technology transfer through the combined efforts of a group of community colleges and an organization experienced in conducting research and development in many advanced areas of science and technology.

By the end of the first year of effort, an extensive technology transfer organization has been established and the individual organizations and personnel have developed a substantial interest in the program and gained a firm perspective of the program's goals. The individuals involved in SEMTAP have learned to understand their roles and to work together toward common objectives. This was accomplished only after a number of contacts and meetings in which plans were formulated for specific activities and the differing practices of the various organizations were reconciled. Problems were solved with respect to differing personnel and financial practices, assignment of responsibilities, commitment of resources, and stimulation of public interest.

The establishment of an operational network was achieved primarily by having each college undertake early activities involving seminars, workshops, information dissemination, technical assistance, and other technology transfer efforts. While these individual efforts varied in the public interest generated and the quality of presentation, most of the projects were conducted successfully and the individuals involved gained a considerable measure of confidence from the early efforts.

The most recent efforts under Phase II have benefited from the early experience gained during the Phase I period and the ability to develop the interest of the business community and to present useful information to this audience has been substantially increased.

The continuing EDA program under SEMTAP is already underway. It is being initiated by a series of seminars and follow-up short courses on energy conservation and solar energy. These courses will lead to the identification of opportunities for one-on-one technical assistance to members of the business community who have an interest in developing their business in these directions.

With the parallel support of the Energy Extension Service program, which is being initiated under SEMTAP by the Michigan Energy Administration, the technical assistance program with EDA funding can be more effectively concentrated on direct technical assistance to the individual. During the coming year, this will allow SEMTAP to concentrate on dissemination of information through NTIS and on direct contact with businessmen seeking technical assistance related to specific problems.

Plans for the second year of the program also include a two-day national symposium to be presented as a means of informing community colleges throughout the country concerning the SEMTAP concept, how it is being implemented, what the results have been so far, and what the ultimate potential of the program will be.

Since SEMTAP's ultimate success depends in large part on convincing the business community and the public at large of the need to take advantage of its services, public relations must necessarily play a large part in any future plans.

More slide/tape shows for the audio-visual display units should be produced on a wider variety of topics.

A series of informational brochures on specific aspects of the program with various levels of detail is badly needed. At present we have nothing available to send interested individuals or organizations except material that is either too general or too specific.

Materials produced by SEMTAP on technical topics (e.g., course notes and workbooks) must be looked at not only for their technical content, but also in a public relations sense. Any material that presents an unprofessional, slipshod appearance projects that image onto the program itself. In addition, such materials are often much more difficult for non-technical people to use, thus reducing the effectiveness of the entire effort.

Continuing contact should be maintained with the various media by both the colleges and ERIM. Another news conference should be held next year, probably just before the planned two-day national symposium.

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7.0 PROPOSED PROGRAM FOR FISCAL YEAR 1978

The EDA/SEMTAP Program proposed for FY78 consists primarily of tasks related to operation of functions developed during the past year. A schedule of these tasks is shown in Figure 15.

Each college will operate the SEMTAP Energy Center and the Technical Information Center. Associated support activities as delineated in Figure 14 will also be conducted.

The ERIM/SEMTAP staff will perform the tasks listed below:

1. Match Technology to Industry Needs

The purpose of this task is to screen technology available from NTIS and other sources, package technical information in accordance with business types being serviced, and distribute such information directly or via SEMTAP seminars, courses, etc.

2. Classification of Business and Industry

The business data base will be continually used to classify business firms participating in the program and to expand the target audience.

3. Provide Technical Assistance

Technical assistance will be provided to business (implementors) firms participating in the program to increase their skills in energy conservation technology.

4. Train College Staff for Technical Assistance Activities

Technical staff at the SEMTAP colleges will be trained to perform the technical assistance functions at the college.

5. Training for Information Retrieval Operators

Persons operating the Technical Information Centers at the SEMTAP colleges will be continually trained to increase their skills in information retrieval.

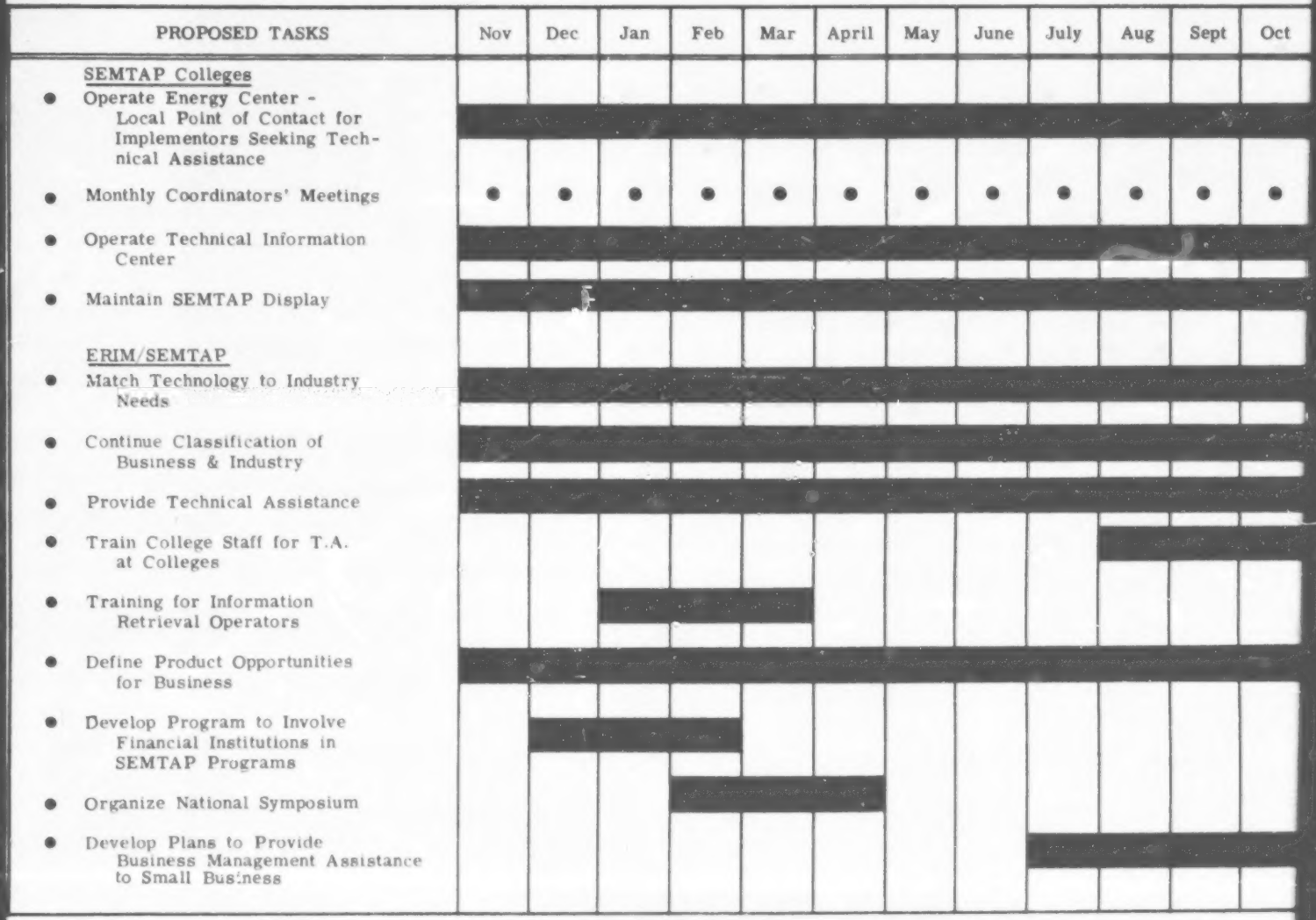
PROPOSED TASKS
Nov
Dec
Jan
Feb
Mar
April
May
June
July
Aug
Sept
Oct
SEMTAP Colleges
Operate Energy Center - Local Point of Contact for Implementors Seeking Technical Assistance
Monthly Coordinators' Meetings
Operate Technical Information Center
Maintain SEMTAP Display
ERIM/SEMTAP
Match Technology to Industry Needs
Continue Classification of Business & Industry
Provide Technical Assistance
Train College Staff for T.A. at Colleges
Training for Information Retrieval Operators
Define Product Opportunities for Business
Develop Program to Involve Financial Institutions in SEMTAP Programs
Organize National Symposium
Develop Plans to Provide Business Management Assistance to Small Business

FIGURE 15.

Information Service Plans For Second Year

In the next year of SEMTAP we will more aggressively promote information services, particularly NTIS products. This year has been spent in orientation, training, and basically establishing the system. It is now time to actively seek clients who can benefit from these services. Most of these clients will be drawn from other SEMTAP activities: seminars, mini-courses, and technical assistance. Some will be referred to the information centers from other agencies.

This year we plan to produce a small brochure to explain SEMTAP information services. The brochure would accompany the displays and be distributed at all SEMTAP activities. Where this year most information requests have been stimulated by other SEMTAP programs, we expect that next year the college libraries will begin to see some clients first, and from there refer them to the college contact for appropriate assistance.

The college librarians will begin to take a more active role in the various SEMTAP activities, such as speaking at college seminars and mini-courses (some of them have already done this). Each college will also set up an accounting system which will allow clients to purchase NTIS products through the library.

6. Define Product Opportunities for Business

The purpose of this task is to identify new energy related products that can be manufactured by small business firms participating in the program. It is anticipated that this program may result in the preparation of a monthly or quarterly document delineating new product opportunities (new ideas, available patents, etc.) which may be self-supporting in the future.

7. Develop Program to Involve Financial Institutions in SEMTAP Programs

The purpose of this task is to make financial institutions more aware of business opportunities associated with the energy conservation service industry and to encourage their financial backing of firms (existing or newly created) interested in energy related business opportunities.

SEMTAP

Southeastern Michigan
Technical Assistance Program

8. Organize A National Symposium

The purpose of this task is to organize and conduct a symposium for community colleges throughout the country (1250) to learn of the SEMTAP experience.

9. Develop Plans to Provide Business Management Assistance to Small Business

Many small businesses entering the energy conservation business may require assistance in management processes. A program plan to establish a business management assistance function at each SEMTAP college will be prepared and submitted to the college presidents for their consideration. If approved, the plan would be implemented in FY79.

SEMTAP

Southeastern Michigan
Technical Assistance Program

8.0 SEMTAP PARTICIPATION IN THE MICHIGAN ENERGY EXTENSION SERVICE PROGRAM

The SEMTAP organization was selected by the Michigan Energy Administration as the technology delivery mechanism to assist small business establishments to implement energy conservation measures as part of its EES proposal to the Department of Energy. Michigan was one of ten states to be awarded a grant to implement a pilot EES system; it is anticipated that the program will be initiated in November 1977.

SEMTAP activities in the EES program will be directed toward two target audiences. Work elements associated with these groups include the following:

62,000 Small Business Establishments

- . Consultation
- . Seminars
- . Training Courses
- . Technical Assistance

5,700 Small Business Energy Conservation Implementors

- . Training Courses
- . Future Seminars (after January 1978)

It was proposed and accepted by the Michigan Energy Administration and the U.S. Department of Energy (DOE) that the EES funds be used to continue the seminars and training courses for energy conservation implementors that were initiated with EDA funds and that future EDA funds be used to conduct on-site technical assistance to the 5,700 small business firms classified as implementors. It was felt that such an arrangement would more effectively focus EDA funds on job creation/economic development and would be synergistic with DOE/EES program objectives. Since neither program has sufficient funds to adequately service all small business, the proposed arrangement seems rational.

Figures 16 and 17 illustrate the relationship of the EDA and the EES program.

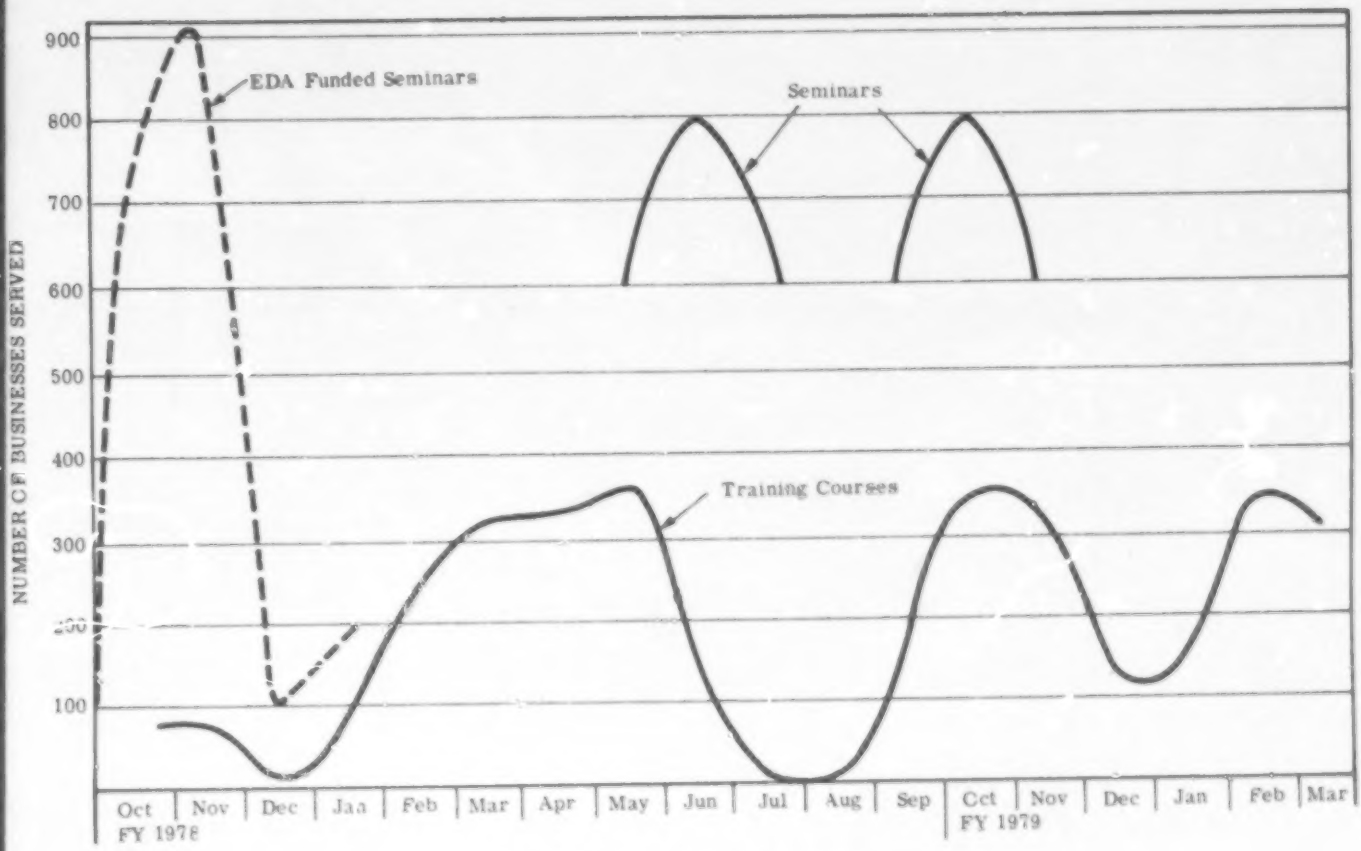

FIGURE 16. RATE OF SERVICE ACTIVITY

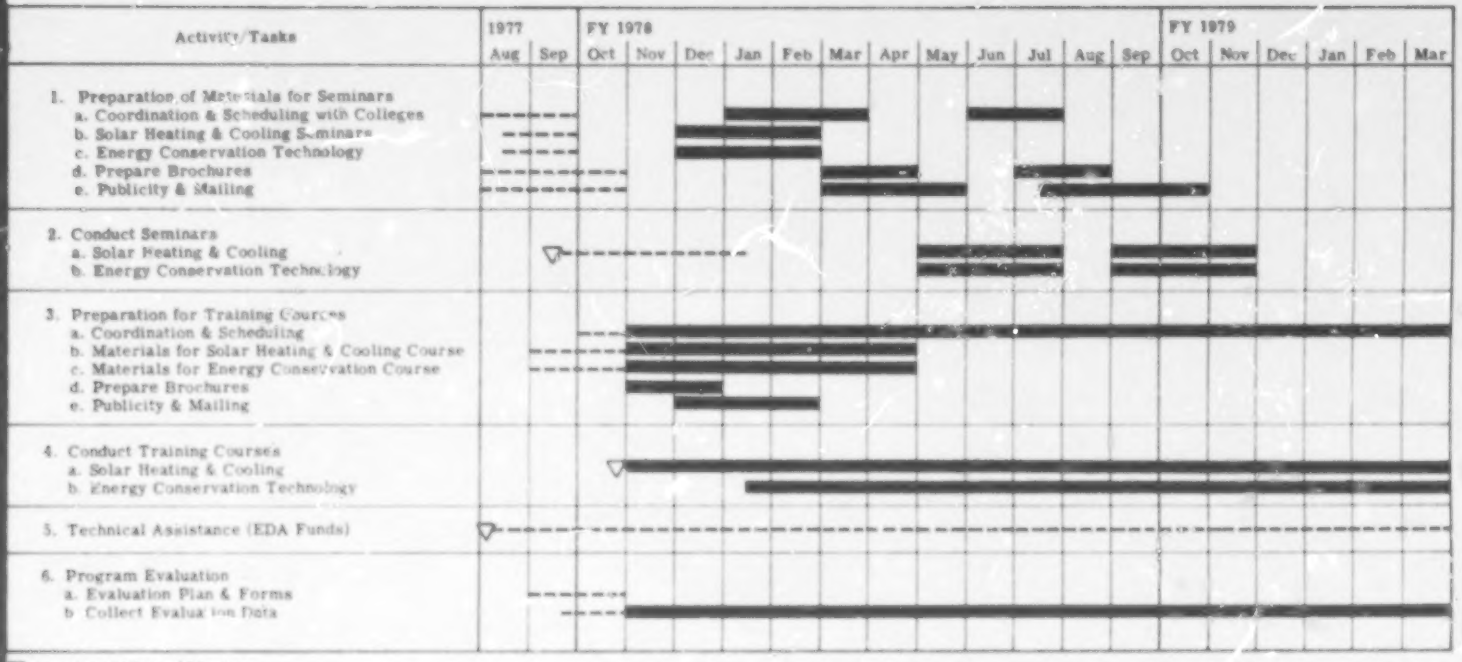

FIGURE 17. PROPOSED EDA/SEMTAP SCHEDULE

SEMTAP

Southeastern Michigan
Technical Assistance Program

APPENDIX A

SEMTAP Newsletters

1. January 1977
2. February 1977
3. March 1977
4. April 1977
5. May 1977
6. June 1977
7. July/August 1977
8. September 1977
9. October 1977
10. November 1977
11. December 1977

SEMTAP

NEWSLETTER
JANUARY 1977

Southeastern Michigan Technical Assistance Program

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Wayne County Community College
Dr. William Colovas
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NOTE FROM THE EDITOR

SEMTAP is a very ambitious program with many diverse activities. We are hoping that this monthly newsletter will help keep everyone informed about the many different projects that are going on all over Southeast Michigan, and also promote an exchange of information and ideas between all of us.

But a newsletter can't exist without news, so I'm using this space this month to ask everyone to call or drop me a line about anything that might be of interest to others in the program — announcements of coming events, notes on specific projects, requests for information, or even philosophical comments on SEMTAP itself.

I'm looking forward to hearing from you!

- Judy Steeh

JANUARY 26 - TECHNICAL INFORMATION WORKSHOP

There will be a workshop at ERIM on January 26 to discuss ways of accessing the various federal technical information data bases — especially NTIS. It promises to be a very interesting and useful session; the examples will all be on energy resources and conservation, but the theory, of course, will apply to any technical field. Claudia Vandermade has organized the meeting and will be sending a letter later this month with further details.

HENRY FORD COMMUNITY COLLEGE

Stewart Gingrich plans to set up an Advisory Committee that will represent local businesses and trades, and give HFCC an idea of local interests and needs in the area of energy conservation. His plans include a series of meetings in March or April to present the fundamentals of energy conservation. He is also interested in developing long-term programs to train "energy technicians" who will specialize in energy conservation.

HIGHLAND PARK COMMUNITY COLLEGE

During December, Roger Felix arranged for Don McCreery and Bob Sampson from ERIM to visit four Highland Park public school buildings. Even after brief tours, the two were able to send Felix a report pointing out several areas where the schools could use energy more efficiently.

Later, McCreery and Fred Tanis performed the same sort of exercise at Downes Manor, a senior citizens' apartment complex. Again, they were able to suggest several improvements.

Felix has also arranged for McCreery to talk to a local citizens' committee, the Homeowners Training Program for Community Development, about energy conservation. He hopes to follow this up by arranging a series of workshops for homeowners.

JACKSON COMMUNITY COLLEGE

The first project at JCC will be a seminar and follow-up course on energy conservation. The college will work with a list of 600 companies in their area. Wallace Ollila has established an Advisory Committee with representatives that include realtors, home builders, contractors, and labor, to help plan the seminar and course. Robert Hanlin is responsible for detailed planning at Jackson.

MACOMB COMMUNITY COLLEGE

Edward Breen and other staff members at Macomb are discussing several technology transfer projects. Their immediate problem is generating enough public interest in energy conservation to support a course.

MONROE COMMUNITY COLLEGE

During December Edwin Dwyer and other interested staff members discussed several possible activities, especially one that would stress local concerns about pollution.

C.S. MOTT COMMUNITY COLLEGE

One of the first projects Charles Roche is interested in starting is an energy conservation workshop for tradespeople in the area. Mott is anxious to establish a full-time technology transfer coordinator at the college as soon as possible, and Roche is also investigating the potential for a Mott "Technology Hot Line."

SCHOOLCRAFT COLLEGE

Schoolcraft is hoping to run a course in energy conservation for local businesspeople. About 200 businesses in the area received letters in mid-December advertising the course, which will be given during the winter semester if enough people respond. Ron Griffith at Schoolcraft will have more information.

ST. CLAIR COMMUNITY COLLEGE

Jerry Lynch is making plans to set up an assortment of displays and exhibits at the college to present information about both the energy crisis and SEMTAP. Right now the major problem is locating the displays — Lynch would be glad to hear about any that are available from schools or private firms.

WASHTENAW COMMUNITY COLLEGE

At the end of October, Washtenaw held an energy conference for local building industries. Despite the small turnout, everyone involved felt that they learned a lot — both about the need for publicity before the event, and about the mechanics of the conference itself. Edith Jacques is working now to get more people at the college involved with SEMTAP.

WAYNE COUNTY COMMUNITY COLLEGE

William Colovas has scheduled a meeting for mid-January to give the staff at the college more information about SEMTAP and to discuss some ideas for future projects.

ERIM

Work is proceeding on the first film/tape presentation for the SEMTAP display centers. This show will be an introduction to SEMTAP. People at ERIM would be very interested in hearing from anyone who has ideas for subsequent topics, or who has a similar slide/tape presentation already prepared that could be adapted to our display format. If you have any questions or comments about the display, your ERIM contact person or Claudia Vandermade (994-1200, x410) would be happy to hear them.

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SEMTAP

NEWSLETTER
FEBRUARY 1977

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NOTE FROM THE EDITOR

SEMTAP made the front page last month! The December 1976 edition of "Directions," the monthly newspaper at Highland Park, used the program for its lead story, and a very good write-up it was too. A related story on page six of the paper was a little extra frosting on the cake.

Thanks, I'm sure, are due Roger Felix for getting us the publicity. The more the word gets around about SEMTAP, the easier it will be to promote the various activities and strengthen the program.

- Judy Steeh

COMING EVENTS

February 12 - "Home Winterization" course begins at Washtenaw
February 17 - One-day energy seminar at Jackson

NEED A SOLAR ENERGY EXPERT?

ERIM's Don McCreery and Irv Sattinger are now "certified experts" in solar energy systems. The two just completed a course called "Design of Solar Heating and Cooling Systems for Residential Buildings" which was held at Colorado State University in Boulder from January 10 - 21. Part of C.S.U.'s funding for the course came from the Economic Development Administration.

Each attended half of the two-week course. In McCreery's portion the emphasis was on the installation, operation, and maintenance of solar energy systems. Sattinger's group went into a fair amount of detail about design.

The two are ready and willing to talk to anyone - lecture groups, seminars, meetings, etc. - about solar energy.

HENRY FORD COMMUNITY COLLEGE

Stewart Gingrich is still lining up local business and professional people to serve on his Advisory Committee.

HIGHLAND PARK COMMUNITY COLLEGE

As mentioned in the "Directions" article, Highland Park is working to develop materials and a syllabus for a course in energy conservation. This course would be part of the college's Homeowner Training Program, which already covers a broad range of basic home repair activities, from painting and carpentry to landscaping and gardening.

The college and ERIM also sponsored an energy-use assessment of school facilities in the city - a study that is especially appropriate this winter. Even before our current energy crisis a study by the State Board of Education School Management Services showed that the cost of heating and lighting Michigan schools has more than doubled since 1973-74.

JACKSON COMMUNITY COLLEGE

Jackson's SEMTAP Advisory Committee met recently to hear Irv Sattinger describe ERIM's technical experience and activities and explain SEMTAP and its objectives.

Robert Hanlin outlined his ideas for an energy conservation seminar. This will be a SEMTAP-sponsored activity, held on February 17 at the Jackson Holiday Inn, for one day from 9 to 5. Hanlin is expecting 25 - 30 attendees.

The people at the committee meeting showed considerable interest and enthusiasm for participating in SEMTAP. Clearly, Wallace Ollila has done his recruiting well and can look forward to getting a lot of valuable help from the committee in the future.

MACOMB COMMUNITY COLLEGE

Edward Breen and others at Macomb are still trying to decide on a specific SEMTAP kick-off project. The college already has a course in energy conservation, and is considering ways to reinforce this sort of program.

C. S. MOTT COMMUNITY COLLEGE

Charles Roche has turned the role of contact person over to Dr. Alan Matherne, Mott's Director of Community Relations, since he feels that the SEMTAP program as a whole would fit better under the community relations umbrella than under his own Technology division. Matherne's telephone number is (313) 762-0468.

Plans for Mott's Energy Conservation Seminar proceed apace. The seminar, set for for March 29, will be geared to people whose businesses or jobs are directly affected by energy conservation issues. It will probably combine a dinner meeting and evening seminar and cover a wide range of topics, including program orientation, NTIS and other information sources, the new ASHRAE codes and standards, and a discussion of solar energy.

SCHOOLCRAFT COLLEGE

Schoolcraft did not get enough responses for its projected course in energy conservation for small businesses, so Ron Griffith has reluctantly decided to cancel it for the coming term. Presently, he is casting around for alternatives - either for new ideas for promoting another course, or for entirely new projects.

ST. CLAIR COMMUNITY COLLEGE

After a longer look at the kinds and numbers of energy displays available, Jerry Lynch has decided to scrap the project for the time being. Instead, St. Clair will hold a one-day seminar geared to several groups in the community.

His tentative agenda includes a keynote speaker from the local community; morning sessions on general principles of energy conservation and the application of those principles to schools, public buildings, and small industries; and an afternoon session on energy conservation for the homeowner, with a discussion of solar energy. Tentative date for the meeting is April 2. There will be a registration fee; call Lynch for more information.

WASHTENAW COMMUNITY COLLEGE

Edith Jacques is in the throes of promoting a course in weatherization for homeowners which will be run at Washtenaw as part of the college's community service program. It will be given in four three-hour Saturday sessions, on February 12, 19, 26, and March 5, with an extra session if necessary to give the students more background.

The course will utilize technical experts from ERIM and course material from the Federal Energy Administration's Project Retro-Tech. Students without any technical background or experience will learn how to set-up an energy budget, analyze energy consumption in their own home, and decide on economic ways to reduce it.

WAYNE COMMUNITY COLLEGE

Several possible projects were discussed during a mid-January meeting at Wayne. One that Pat Drabaut and JoAnn Terry are considering is a seminar or conference about various energy systems for facilities' managers at other community colleges and local school districts.

ERIM

The Technical Information Workshop on January 26 proved a great success; there was a good turnout and most of those who attended felt that it was a very productive meeting.

The thirteen representatives from the community colleges included technologists, librarians, and administrators.

Claudia Vandermade talked about the library's (and librarian's) role in SEMTAP and gave an excellent description of a technical report. Mary Brown, from ERIM's Technical Documents Service, showed examples and explained NTIS ordering procedures. Bad weather forced most people to leave before Vandermade's sample computer search for documents relating to the economics of home insulation, but she will be happy to repeat it for anyone who cares to visit ERIM, or even travel out to any college that requests the demonstration.

One SEMTAP objective is to have each of the participating colleges become a retailer for NTIS services. For the time being, each of the ten colleges has $180 to spend at NTIS before March 31, and of course we are hoping to use it all. Vandermade's list of selected documents on energy will be coming out shortly.

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SEMTAP

NEWSLETTER
MARCH 1977

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NOTE FROM THE EDITOR

There was an article on community colleges in the December issue of The Changing Challenge (the General Motors quarterly magazine) that I found very interesting. I found it to be a thorough, well-balanced discussion of the growth of community colleges during the last 10 years, their successes, and the problems they face today. If more people understood the needs they meet, they would have less trouble justifying their existence to the state legislatures and communities that pay the bills. As Dr. Reginald Wilson, President of Wayne County Community College, put it, "We're considered a kind of stepchild of education when it comes to getting funding and the public's ear."

Technology transfer wasn't mentioned in the article, but it certainly might have been - if only as yet another way in which the community colleges can service the community at large, and thus strengthen their case for continued funding.

Back to more immediate matters. Fran Elliott, the SEMTAP secretary at ERIM, has asked me to announce that we now have our own telephone extension. The number is 268. It will be especially useful for clients referred to ERIM by the colleges. Anyone who calls ERIM at 994-1200 and asks for either SEMTAP or that number will be put through Fran, who will then route the caller to whoever can best handle the inquiry.

- Judy Steeh

COMING EVENTS

March 1-18 - Home weatherization course at Highland Park

March 27 - Flint Energy Update seminar at Mott

HELPING THE INDIVIDUAL

To date, many of our projects are conferences, courses, etc. which involve groups of people. It's easy to forget that SEMTAP is also intended for assistance to individuals and especially to small businesses.

One good example of this kind of assistance is the technical advice Henry Ford College and ERIM were able to give to the Construction Video Surveying Company (see below).

Also, Monroe arranged for Bob Sampson of ERIM to talk with one of their local inventors about developing his ideas for conserving energy in greenhouses by using fiberglass.

Then Sampson and Fred Tanis met with a Flint-area entrepeneur who had contacted Mott about his alternate energy solution - a vertical axis windmill. The two commented on his design, made suggestions about obtaining more test data, and directed him toward some sources of pertinent information.

This "one-on-one" sort of individual assistance will often provide the most effective and dramatic kind of technical assistance. Plans are afoot to promote more of the same, particularly for addressing energy conservation.

HENRY FORD COMMUNITY COLLEGE

As mentioned in the previous article, Stewart Gingrich was able to arrange a meeting between the owners of Construction Video Surveying (a small company that is developing a new surveying system), Thomas Waffen (Henry Ford's surveying instructor), and Irv Sattinger of ERIM.

Waffen and Sattinger were able to give the people from CVS some technical consultation and advice, which we understand will help solve most of the remaining technical problems.

HIGHLAND PARK COMMUNITY COLLEGE

Things moved fast in Highland Park during February. On the 15th Roger Felix and Bill Wilcox of the college had Don McCreery and Gene Thomas from ERIM speak to members of Highland Park's Neighborhood Planning Advisory Council about a home winterization course for homeowners. The Council voted to endorse the activity, and the first meeting of the home winterization course meets at Highland Park College on March 1.

The course will run on Tuesday and Thursday nights for three weeks, as part of Bill Wilcox's ongoing Homeowner Repair Program. It has a format similar to the course at Washtenaw, using selected material obtained from the Federal Energy Administration, the Department of Housing and Urban Development, and the Energy Research and Development Administration.

McCreery also visited Downes Manor last month to follow up on the report he and Fred Tanis prepared after visiting the senior citizens' apartment complex in January. He spoke to Mr. Downes and his manager at some length about some things that could be done to improve energy conservation at the complex, and will be meeting later in March with the residents themselves. He will also be following up with the School Board on the survey he and Bob Sampson conducted on some elementary schools in the area.

JACKSON COMMUNITY COLLEGE

There was an excellent response to Jackson's energy conservation seminar on February 17, due in large part to a strong program, some good publicity, and a lot of hard work on the part of Bob Hanlin, Bill Ely, and Leo Brannik (Chairman of Jackson's Advisory Council). About 85 people attended the all-day seminar. The program covered a lot of ground, from solar energy, to heat pumps, to the best way to design houses for energy conservation. The number and quality of questions at the end indicated that it was a great success.

There is a meeting of the Advisory Committee this month to follow up this success and discuss future SEMTAP plans.

MACOMB COMMUNITY COLLEGE

Macomb is still in the process of generating an overall plan for their participation in SEMTAP. Their plan, which Edward Breen will be considering in the near future, is expected to be oriented toward the production of information brochures and the offering of energy conservation courses.

MONROE COMMUNITY COLLEGE

Now that Monroe's millage campaign is over, Edwin Dwyer is sitting down to concentrate on planning some SEMTAP activities. One of his first thoughts has been technical assistance for local school systems, which like everyone else were hit hard by this nasty winter; he would like to help organize a conference on energy conservation in the schools so that perhaps they can reduce their energy costs next year.

C. S. MOTT COMMUNITY COLLEGE

Plans for Mott's energy conservation seminar, to be called "Flint Energy Update", have been finalized. The program is aimed at people whose businesses are directly concerned with energy conservation; it will be an integral part of a joint dinner meeting of the Flint Chapter of the American Institute of Architects, the Sheet Metal and Air Conditioning Contractors National Association, the American Society of Heating, Refrigeration and Air Conditioning Engineers, and the Flint Board of Realtors.

Alan Matherne and his committee have arranged for four separate sessions - on ASHRAE Standard 90-75, Instrumentation, Technical Information, and Design for Solar Systems - to be given concurrently by people from the college, members of the professional societies sponsoring the meeting, and ERIM personnel. Some 5,000 copies of the program and registration forms were distributed in the area, and the committee has arranged for substantial media coverage for the event, including coverage during one of their weekly TV programs on job opportunities and a TV news interview about the program.

SCHOOLCRAFT COLLEGE

Ron Griffith has arranged for Irv Sattinger to address the Plymouth Chamber of Commerce on April 12, to describe SEMTAP and discuss practical energy conservation for small businesses.

We are all hoping this proves to be an effective way to get information about the program out into the business community.

ST. CLAIR COMMUNITY COLLEGE

A tentative agenda has been established for St. Clair's energy conservation seminar, now scheduled for April 16. Jerry Lynch's program has Mr. Mel Krabach of Southeast Michigan Gas beginning the meeting with a talk about energy needs and costs; then people from the college and ERIM will discuss some basic principles of heat loss, energy conservation in building design, cost/effectiveness of various energy conservation techniques, and describe technical information available from NTIS.

WASHTENAW COMMUNITY COLLEGE

The home winterization course at Washtenaw has gone very well, despite a small turn-out. Students ranged from a roofing contractor considering insulation installation as a new winter season business, to a lady whose heating bills were too high and a man who was remodeling his 80-year-old house.

Despite this wide range of interests, all the participants feel that they are getting a lot out of the course, and indicate that they know what to do to reduce their fuel bills (and save energy).

On February 23 Edith Jacques of Washtenaw, with Don McCreery, Gene Thomas, and Reed Maes of ERIM, attended a hearing where they heard a review by Linda Harris of Ypsilanti's block grant program. Jacques and McCreery proposed that some of the block grant money should be used to train homeowners at the college during the summer; then people who complete the course would be eligible to apply for assistance in financing improvements to their homes.

WAYNE COUNTY COMMUNITY COLLEGE

Pat Drabaut of the Community Services Department and Don McCreery are discussing various activities that would be appropriate of Wayne County to engage in as an initial SEMTAP project.

ERIM

The SEMTAP computer terminal is available now at ERIM, for accessing NTIS via Lockheed's DIALOG. For help, or more information about the system, call Claudia Vandermade. The average cost of a computer search for references on a given subject is about $44.

The colleges seem to be having no trouble at all spending their NTIS budget. Vandermade reports that by the end of this month all the libraries should have a good start on technical collections in the area of energy conservation.

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SEMTAP SPACE EXPERIMENT?

NASA space shuttle flights scheduled for 1980 and 1981 will have provision for experiments as part of special payloads. ERIM will plan to purchase space on one of the flights and use it for experiment(s) designed by the science department at one of the SEMTAP participating colleges, if there is interest in such a program.

There are many details still to be worked out, but if the colleges have an interest, they should call or send a note to Bob Sampson at ERIM.

SEMTAP BOOSTED IN WASHINGTON AND LANSING

Officials in Washington and Lansing had a chance to hear about SEMTAP during the month of March.

On the 14th, Don McCreery was in the Nation's capital to attend a meeting of the National Association of Management and Technical Assistance Centers, where he learned about new needs and opportunities for SEMTAP and pending legislation. He stayed until the 16th to follow up on inputs, meet with potential sponsors, and visit the EDA office.

Claire Olson, of the American Association of Community and Junior Colleges, was one of 10 people invited to meet with senior members of James Schlesinger's staff on March 23. Needless to say, she used the opportunity to explain the community colleges' potential for addressing energy conservation needs and used SEMTAP as a prime example.

(continued)

COMING EVENTS

April 5 - College coordinators at ERIM
April 7 - SEMTAP meeting with representatives from Michigan State
April 16 - Energy conservation seminar at St. Clair County Community College
April 20, 21, 25 - "Home Cooling for Summer Comfort" seminar series in Monroe

On March 28, Don McCreery and Reed Maes drove up to Lansing from ERIM to testify at a public hearing on the Michigan Energy Administration's proposed plan to reduce energy consumption. McCreery used a good part of his alloted 10 minutes to point out that SEMTAP is already addressing some needs called for in the plan, and could do more. He also emphasized the importance of providing suitable motivation for causing change and the need for careful coordination of the many programs already in existence.

NEW RESOURCES

Claudia Vandermade has found two new sources of information for librarians in the program. First, she has found that the State Library Access Office at the University of Michigan and Michigan State University will photocopy up to 50 pages from journals a day, free of charge for all the community colleges. You must use the standard ALA photocopying form; send it with a mailing label to The University of Michigan, Graduate Library, State Access Office, Ann Arbor, MI 48109.

Claudia also tells us that a free quarterly publication called Michigan Energy (soon to be called Michigan Energy Data) is available from the Michigan Energy Administration, Law Building, Lansing, Mi 48913. It lists sales and energy figures, reviews legislation, and has a substantive article in each issue.

The Michigan Department of Labor is offering to present training seminars on the Michigan Energy Code and the new ASHRAE 90-75 standard. You provide the place and the audience; they provide the training material and the instructor. Anyone who did not receive a copy of the notice about these seminars can call me or contact Robert Cappelletti at the Bureau of Construction Codes, State Secondary Complex, P.O. Box 30015, Lansing, MI 48909, (telephone 517/373-8187).

AROUND THE COLLEGES

HENRY FORD COMMUNITY COLLEGE

Stewart Gingrich held the first meeting of Henry Ford's Advisory Committee on March 23, with Don McCreery and Irv Sattinger of ERIM on hand to describe SEMTAP and its objectives.

Gingrich plans to hold an all-day energy seminar on a Saturday during the latter part of May, as the college's first SEMTAP activity. Some of the topics the committee is considering for inclusion in the program include energy conservation methods in building construction, heat pumps, solar energy, and the Michigan Energy Code (ASHRAE 90-75) that takes effect in June.

HIGHLAND PARK COMMUNITY COLLEGE

Bill Wilcox had a good turn-out (20-25 per class) for the home winterization part of his class in basic homeowner repairs, and plans to repeat it later.

Don McCreery talked to residents of Downes Manor, the senior citizens' apartment complex, on March 10. He showed movies and spoke of the energy crisis, showing how the audience could help by doing things in their own apartments and changing their own lifestyles.

JACKSON COMMUNITY COLLEGE

Jackson's Advisory Committee met on March 22 to discuss new projects as follow-ups to their very successful seminar held in February. Several possibilities were mentioned, but nothing had been decided by the time we went to press.

As a result of interest in ERIM technical resources gained while participating in SEMTAP, Chuck Gass (Director of the Michigan Space Center) and Wallace Ollila (of Jackson) interested Consumers Power Company in having ERIM make a thermal map of the Jackson area. The flight was made the night of March 25. Data from the flight will be valuable for a variety of energy conservation activities.

MACOMB COMMUNITY COLLEGE

Edward Breen and Irving Pannish are helping Ray Lee and William Cooper plan a seminar on Solar and Energy Conservation, scheduled for Saturday, May 7 on Macomb's South Campus in Warren. Lee and Cooper have arranged an all-day affair aimed at contractors and people who service heating and air conditioning equipment. Topics will include efficiency of heating and air conditioning systems, controls for energy conservation, servicing problems, and other problems and opportunities in solar energy. Participants will also tour Macomb's climate control laboratories. With speakers from three public utilities, Carrier Air Conditioning, and Honeywell, it looks to be a very strong program indeed. The advance registration fee is $10.

In addition, Breen is considering the possibility of scheduling one of the Department of Labor's seminars on the new ASHRAE 90-75 standard and the Michigan Energy Code.

MONROE COUNTY COMMUNITY COLLEGE

At a series of meetings in March, Edwin Dwyer and his Advisory Committee laid tentative plans for a series of six seminars. The first three will deal with cooling and will be held at three locations in Monroe on April 20, 21, and 25. The second three seminars will discuss insulation.

Later the college hopes to run a workshop or seminar on energy conservation for schools, churches, and small businesses. Dwyer is also planning to take Robert Cappeletti of the Department of Labor up on his offer to give a seminar on the ASHRAE 90-75 standard.

C.S. MOTT COMMUNITY COLLEGE

"Flint Energy Update", Mott's first SEMTAP project, was a spectacular success, with almost 200 people gathered at the College Center for the 4-1/2 hour meeting. A really top-notch promotional campaign was the key to the large turn-out, helped by the fact that Alan Matherne and his Community Advisory Group had integrated the seminar with a joint dinner meeting of four local professional societies. All of the speakers reported good attendance and keen interest in their presentations; solar energy seemed to be an especially popular topic.

Next on Matherne's agenda is the annual May Institute, a day-long program conducted at the college by the Flint Community Schools and attended by 300 to 700 parents. The theme this year is "The Politics of Survival", with three subtopics: Energy, Parenting, and Institutions. Matherne has asked SEMTAP to assist with the "Energy" topic.

Also in connection with SEMTAP, Mott is preparing a joint presentation with ERIM in energy conservation, to be given to Flint community leaders. It is proposed that Mott, with SEMTAP assistance, could take a leading role in developing a comprehensive, coordinated energy program for Flint.

ST. CLAIR COUNTY COMMUNITY COLLEGE

Jerry Lynch has St. Clair's energy conservation seminar ready to go on April 16. The all-day session will "investigate energy conservation resources and explore methods of controlling heat losses and energy transfer in hospitals, schools, stores and homes," and will feature speakers from Michigan Consolidated Gas Company and Detroit Edison, as well as Ruth Foley (SCCCC's librarian) and Bob Sampson, Irv Sattinger, Fred Tanis, and Claudia Vandermade from ERIM.

The seminar fee of $10 covers lunch, coffee, and handouts. Call Lynch for reservation forms or for more information.

WASHTENAW COMMUNITY COLLEGE

Edith Jacques is compiling a preliminary list of names for Washtenaw's Advisory Committee.

WAYNE COUNTY COMMUNITY COLLEGE

Patricia Drabant is organizing two home winterization courses: the first, for homeowners, to be held in early May, and the second, for senior citizens, scheduled for later in the month. The first courses will be given by personnel from ERIM, but Drabant has arranged for staff members from the college to attend, so that Wayne CCC can repeat the courses later with its own people as instructors.

Drabant also has requested that a SEMTAP technical team do an energy survey of a local parochial school.

AT ERIM

Coordinators and other staff members from the colleges will have a chance to get together on April 5, to talk over their experiences with SEMTAP so far and plan future activities. On April 7, representatives of the Cooperative Extension Service and Michigan State University will visit ERIM for an exploratory meeting, to discuss ways in which we might work together on an energy conservation program.

It looks as if the first piece of SEMTAP promotional literature - a vest-pocket brochure that gives a general overview of the program - will be available before the end of this month. They are long overdue and should be very useful. If you are going to want a large supply, it might be a good idea to let us know, so we know how many to print.

FROM THE EDITOR

Our readership has been steadily growing, and many people now receiving this newsletter may not be all that familiar with SEMTAP's origins, philosophy, goals, etc. Anyone who would like more information about the program has only to drop me a line or give me a call - I'll be happy to see that you get some background material.

Judy Steeh

The SEMTAP Newsletter is published monthly for the Southeastern Michigan Technology Assistance Program. News and comments should be sent to Judy Steeh, Environmental Research Institute of Michigan, P.O. Box 618, Ann Arbor, MI 48107. Telephone: (313) 994-1200, Ext. 306.

SEMTAP

MAY 1977 NEWSLETTER

Southeastern Michigan Technical Assistance Program

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Washtenaw Community College
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Wayne County Community College
Dr. William Colovas
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TOLL-FREE SOLAR HOTLINE

The National Solar Heating and Cooling Information Center (Box 1607, Rockville, MD 20850) has set up a toll-free number for solar energy information: 800-523-2929.

The Center has a vast amount of information at their fingertips — and if they can't answer your question they will refer you to someone who can. If you have a lot of questions you might be better off writing than calling.

INSULATION — BEFORE AND AFTER

Do you know someone who is not really convinced that proper insulation saves energy (and money)? Or who is convinced, but would like some facts and figures? Now we have a test case to use as an example.

Bob Salmer, an engineer at ERIM, recently insulated his house in Ypsilanti by blowing cellulose fiber into the walls (using a method approved by Detroit Edison) and increased his ceiling insulation.

Salmer carefully collected both technical and economic data before and after the insulation, and then calculated the effectiveness. His study indicates that he will recover his investment within 5 years for the ceiling insulation and in less than 8 years for the walls.

Irv Sattinger at ERIM has all the figures, for anyone interested in further details.

COMING EVENTS

May 3 - Home winterization course for Wayne County Community College starts in Trenton
May 5 - May Institute program at Mott
May 7 - Solar and Energy Conservation seminar at Macomb
May 7 - Michigan Space Center opens at Jackson
May 18 - College coordinators' meeting at Macomb, 10 am.

AROUND THE COLLEGES

HIGHLAND PARK COMMUNITY COLLEGE

Looking ahead to next winter, Highland Park is very interested in having a training program for staff members during the summer. President Thomas Lloyd is concerned about developing an energy conservation plan for the college itself with SEMTAP's help — which would certainly set a good example and be an excellent model for local businesses.

JACKSON COMMUNITY COLLEGE

This last month Jackson was absorbed in another kind of technology transfer — preparing for the dedication of the Michigan Space Center on May 7. The Space Center, which was funded jointly by the State of Michigan and the college, will be open seven days a week, from 8 to 5 (9 to 6 during the summer), and admission will be $1.50 for adults and 75¢ for children, with special groups rates available.

Form Director Chuck Gass's description, it is an absolutely super place, with exhibits that include the actual Apollo 9 spacecraft (flown by Jackson alumnus General James A. McDivitt), models, spacesuits, and a 4-billion-year-old moon rock. But the center, says Gass, is much more than just a museum. It also has ongoing programs with the college such as a survey by the Psychology Department on what people really think about the space program.

MACOMB COUNTY COMMUNITY COLLEGE

Macomb is on the move, with more than 200 people already signed up for the May 7 Solar and Energy Conservation Seminar. Edward Breen has not yet set the date for a seminar on the ASHRAE 90-75 standard, but if the present enrollment is any indication of the amount of interest in Macomb County about energy related topics, he'll need to reserve a large room when the time comes.

Allan Levy of Macomb will be coordinating public relations for SEMTAP, and a meeting was held at the college on April 20 to get that ball rolling. The meeting on the 18th will also include this topic on the agenda.

MONROE COUNTY COMMUNITY COLLEGE

Monroe found that of the the three seminars offered on cooling last month, the one held at the college attracted by far the largest crowd. So Ed Dwyer tells us that they will be running only one seminar on insulation, to be held at the college, with a county-wide publicity program beforehand. The seminar will be held sometime late this month, but no date had been set as we went to press.

Dwyer has also contacted the Department of Labor about organizing a seminar on the ASHRAE 90-75 standard, and is still waiting to hear from them about a date.

C.S. MOTT COMMUNITY COLLEGE

Planning the May Institute, which will be held on May 5, was the main activity at Mott this month. SEMTAP has been involved in several aspects of the program that concern energy. Irv Sattinger will be giving a solar energy presentation, and Claudia Vanderamde was able to give Jean Cator, organizer of the program, a list of agencies who had energy information available to the public, as well as arranging for an ERDA film on energy.

SCHOOLCRAFT COLLEGE

Irv Sattinger's talk to the Plymouth Chamber of Commerce in April was very well received. There were about 25 local businessmen at the meeting, which has generated a good deal of interest and several follow-up phone calls to the college.

Ron Griffith is planning a half-day seminar on energy conservation for late May or early June, and has also arranged for Don McCreery and Irv Sattinger to speak to the Schoolcraft faculty as part of efforts to expand the base of understanding about SEMTAP at the college.

ST. CLAIR COUNTY COMMUNITY COLLEGE

About 35 people attended St. Clair's Energy Conservation Seminar on April 16. The group represented a real cross-section of the community — architects, engineers, representatives of the construction trades, housewives, and other interested citizens. The audience was excellent — concerned and alert — and there were some very profitable question-and-answer sessions after the presentations. Evaluation forms were handed out at the meeting; Jerry Lynch is still compiling and analyzing the results.

WASHTENAW COMMUNITY COLLEGE

Edith Jacques has compiled a list of potential Advisory Committee members, and a letter of invitation will be going out over President Gunner Myron's signature during the first week in May.

A faculty Task Force is also being established, to do the preliminary planning and organization for SEMTAP at the college.

WAYNE COUNTY COMMUNITY COLLEGE

Pat Drabant and Marguerite Farmer made a lot of progress last month in getting the SEMTAP program off the ground at Wayne. Their first home

winterization course for homeowners starts on May 3, and another for senior citizens will hopefully be scheduled for June.

Drabant and Farmer also want to hold a seminar at the college's Greenfield Center in June or July, to publicize SEMTAP and to discuss energy conservation in building construction and solar energy as an energy source.

AT ERIM

All but three of the colleges were represented at the coordinators' meeting on April 5. Among the attendees were Roger Felix (Highland Park), Bob Hanlin and Bill Ely (Jackson), Ed Dwyer (Monroe), Al Matherne (Mott), Gale Buchannan (Schoolcraft), Edith Jacques (Washtenaw), and Pat Drabant and Marguerite Farmer (Wayne).

It was a very productive session. Bill Brown, ERIM's president, gave his ideas about SEMTAP's goals and objectives, and Don McCreery summarized the program's progress so far. Joe Welch, from ERIM's Contracts Department, covered some of the details involved in working with contracts from federal agencies. Then Bob DiGiovanni described support ERIM could offer for developing publicity material. It was agreed that such material is very important in holding successful events.

One of the most helpful parts of the meeting was hearing Bob Hanlin, Bill Ely, and Al Matherne talk about their seminars at Jackson and Mott — how they were organized, publicized, etc.

The next coordinators' meeting is set for May 18 at Macomb, beginning at 10 am. Hopefully everyone will be able to make this one, so that all the colleges will have had a hand in setting SEMTAP's future course.

FROM THE EDITOR

Claudia Vandermade tells us that she recently received some very nice brochures from ERDA — two months after she ordered them. So anyone planning to order materials for their SEMTAP display should move quickly.

Speaking of displays, May 9 is the latest delivery date we were given for the cabinets. The film/tape show should be ready soon thereafter.

I seem to recall rashly promising a SEMTAP brochure by the end of April. I should have known better! Production roadblocks and a host of other hassles have slowed us up a bit — we're aiming now for the end of May.

Judy Steeh

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SEMTAP

NEWSLETTER

JUNE 1977

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DIALOG TRAINING FOR COLLEGE LIBRARIANS

College librarians will be receiving special training at ERIM on June 13 in the use of computer-accessed data bases. DIALOG is a service available from Lockheed that provides the user with access to 62 different data bases.

NTIS is the data base that has the most interest for SEMTAP; it has some 560,000 technical references currently on file and is adding about 2000 more each month.

A DIALOG instructor will show attendees how to use the system to make on-line data base searches. In addition to receiving users' manuals they will have free computer time for practice while they are at ERIM.

When they return to their colleges they will be able to obtain lists of references on virtually any subject, via their own computer terminals. DIALOG is also giving each college $100 worth of free computer time for experimentation which must be used within a month of their opening an account.

A data base search will often be the first step when a client comes to SEMTAP for help, and in many cases one or more of the references found will probably provide all the help needed - in others the technical documentation could be used as background material for more extensive work.

COMING EVENTS

June 4 - Department of Labor seminar on ASHRAE 90-75 standard, at Macomb

June 13 - DIALOG training session for librarians, at ERIM

June 16 - Department of Labor seminar on ASHRAE 90-75 standard, at Monroe

COORDINATORS MEET AT MACOMB

The Technical Assistance Coordinators from all ten colleges met at Macomb on May 18. Three main topics were discussed: The information displays, the upcoming SEMTAP press conference, and the format and times of various seminars and training programs for the rest of the year.

Everyone had a chance to look at one of the displays which had been fitted out with a smaple film/tape show and some energy brochures. The rest are still at ERIM, awaiting some minor modifications to the cabinet and delivery of our own SEMTAP show.

Following some discussion of the press conference by George Peace of ERIM and Stu Hall, a public relations consultant, the group got down to nuts and bolts regarding training sessions and seminars. It was finally decided to schedule training sessions, for college staff who will teach three conservation courses at the college, for four Saturdays in October/November. In addition, plans were laid for three seminars and mini courses in solar energy and infrared diagnostics. Before the meeting adjourned tentative dates had been established at seven colleges. Don McCreery (who is coordinating all the dates) tells us that we now have dates from all ten.

GRIFFIN AND MATHERNE SPEAK IN LANSING

A May 11 meeting in Lansing sponsored by the Office of Economic Expansion attracted representatives from almost all the community colleges in the state. Ron Griffin (Schoolcraft) and Al Matherne (Mott), who sat on a panel describing innovative services they provide local businesses, took the opportunity to include SEMTAP in their remarks. Their discussion has in turn, sparked additional requests from colleges outside the network for information about our program.

AROUND THE COLLEGES

HENRY FORD COMMUNITY COLLEGE

Some 100 people attended HFCC's Heat Pump Seminar on May 21. The attendees seemed to feel that they gained quite a bit of useful information during the day-long affair, which concentrated mainly on practical aspects of heat pump design and installation. Stu Gingrich is still analyzing the questionnaire completed by those in attendance, but he says that comments so far are generally very positive.

HIGHLAND PARK COMMUNITY COLLEGE

Roger Felix is juggling a whole range of ideas and projects with long-term implications. For a start, he has begun assembling a team of interested staff members who will attend the training sessions in the fall and then work with him on SEMTAP activities. In addition to Bill Wilcox, who incorporated the home weatherization course in his Homeowners' Repair Program this winter, Roger has Bill Bedcor, John Cates, Ed Garvin and Dale Miller on board. Next fall he is planning an all-out energy day

at the college to present information about solar energy, infrared diagnostics, etc. The plan is to design a program that will appeal to the college staff and the community at large.

President Lloyd's annual report to the HPCC Board included mention of SEMTAP; members of the Board expressed great interest in the program and expressed a desire for increasing involvement on the part of the college in energy conservation activities.

JACKSON COMMUNITY COLLEGE

The Jackson Advisory Committee will be meeting on June 6 to hear a report on the May 18 coordinators' meeting and to discuss some of the issues that were raised.

The college is also working on ways to incorporate into the SEMTAP program information gathered during an ERIM thermal overflight of the city (sponsored by Consumers Power).

MACOMB COUNTY COMMUNITY COLLEGE

Paul Thacker, Associate Dean of Continuing Education, is the new SEMTAP liaison person at Macomb. Thacker replaces Ed Breen, head of the college's research program.

Macomb will be the first of the SEMTAP colleges to sponsor the Department of Labor's workshop on the new ASHRAE 90-75 standard, on June 4.

MONROE COUNTY COMMUNITY COLLEGE

Monroe's seminar on the ASHRAE 90-75 standard will be conducted by Department of Labor personnel on June 16, beginning at 6 PM.

C.S. MOTT COMMUNITY COLLEGE

The Tenth Annual May Institute on May 5 had an excellent turn-out this year. SEMTAP was represented by Irv Sattinger, who teamed up with Gerald Yurk, from a Flint architectural firm, to present a workshop entitled Solar Energy at Work: Projects in Genessee County. About 25 people attended the workshop, and the number and kind of questions that followed indicated considerable interest.

SCHOOLCRAFT COLLEGE

In May Don McCreery and Irv Sattinger attended a weekly Schoolcraft administrators' meeting to explain SEMTAP and to increase interest and support for the program at the college. They were helped in their effort by President Grote who communicated his enthusiasm for the program in his introductory remarks, setting the tone for a very well-received presentation.

WASHTENAW COMMUNITY COLLEGE

Edith Jacques and Dr. Gunder Myran reported on SEMTAP to the WCC Board last month. In general, the Board was pleased with the progress made so far and expressed interest in building a more extensive energy conservation program at Washtenaw.

Letters have gone out to potential members of Washtenaw's Advisory Committee, and Jacques plans to hold the first meeting sometime this month.

WAYNE COUNTY COMMUNITY COLLEGE

Patricia Drabant, a familiar face at many of the SEMTAP meetings, is now the official SEMTAP liaison for the college. The effort at Wayne will be handled by a team composed of Drabant of Community Services, Marguerite Farmer, Interim Director, Learning Resources Center, and Mark McPherson Director, Student Activities.

AT ERIM

Claudia Vandermade reports that people from all ten colleges have signed up to take the DIALOG training course at ERIM on June 13. She suggests, too, that this is the time to be thinking of how to spend that $100 of free computer time to best benefit the SEMTAP program.

FROM THE EDITOR

Roger Felix has done it again! Before his departure for a well-earned vacation in the Philippines he managed to get yet another discussion of SEMTAP activities in Highland Park published in the college paper, "Directions". In the long run that sort of continuing local publicity might well prove to be as valuable as the big media campaigns.

- Judy Steeh

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SEMTAP

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Wayne County Community College
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NEWS CONFERENCE ATTRACTS MEDIA

All the hard work paid off, and the SEMTAP news conference on June 29 appeared to be successful.

Editors from six newspapers, five radio stations, two television stations, and five trade publications came to the Engineering Society of Detroit, where they heard Robert Roelofs (President of SEMLCC and Macomb), Walter Archibald (Economic Development Administration) and Bill Brown (President of ERIM) describe the SEMTAP program and its potential.

ROELOFS ENTHUSIASTICALLY DESCRIBES SEMTAP'S POTENTIAL

Claudia Vandermade was there to demonstrate DIALOG computer searches; there was a lobby display, complete with a demonstration copy of the SEMTAP slide/tape show; and representatives from almost all the colleges were on hand to answer questions about their own programs.

In addition, at least 30 other papers got copies of the press kit from their local colleges.

Stu Hall of Hall Enterprises counts this as one of the most successful conferences of this type that he has ever organized, and everyone involved has high hopes for the good the publicity will do in the community at large.

COMING EVENTS

July 27 - Coordinators meet at ERIM
August 19 - BIOSIS Previews demonstration at University of Michigan

COORDINATORS TO MEET

College coordinators and other interested staff members will be meeting at ERIM on July 27 to discuss their fall plans. The meeting is scheduled to run from 9:30 AM to 3:00 PM.

NASA BUILDS SUPER HOUSE

Many times we seem to hear about solar or other devices that are probably very clever and can save a lot of energy and money - but it's difficult to imagine using them in our own homes. Now the National Aeronautics and Space Administration has built a house at their Langley Research Center in Hampton, Virginia that incorporates many of the domestic "spinoffs" from space research and development. All of the technological innovations in the house are either on the market now or will be within the next five years; NASA claims that the house, which would cost about $45,000, would save the homeowner more than $20,000 in operating costs over a 20-year mortgage.

Features demonstrated in the house range from solar heating and cooling systems and extremely efficient insulation to smaller items such as microwave ovens, smoke detectors, and Temper Foam cushions and mattresses.

To find out more about the house, write the Technology Utilization Office, Dept. FW, NASA-Langley Research Center, Hampton, VA 23665.

Speaking of domestic uses for new technology, Gene Thomas at ERIM has just finished building his own solar oven. He will be more than willing to talk about it, show it, and even demonstrate it (bring your own chicken!). Just call him at 994-1200 for more information.

INTEREST GROUPS PLANNED

There are plans afoot to establish interest groups on a number of energy and energy conservation topics within SEMTAP. Don McCreery and Gene Thomas have been developing a list of appropriate topics. The plan is to invite interested staff members at the SEMTAP colleges to join groups of interest; they will then be put on a mailing list to receive reprints, articles, reports, and current information on their topic. It's anticipated that this will prove to be of great benefit to both students and staff at the colleges, as well as helping to involve more people in the SEMTAP program.

BIOSIS PREVIEWS DATA BASE REVIEW AT U of M

Librarians trained in DIALOG might well benefit from a presentation and workshop on BIOSIS Previews at the University of Michigan on Friday, August 19.

BIOSIS Previews is a data base derived from Biological Abstracts and Bioresearch Index that covers a broad range of biological areas. The program is scheduled to run from 9:30 AM to 5:00 PM in Room 317 of the Undergraduate Library on the U of M campus.

For more information about the program, call Barbara Varra at (800) 523-4806. For reservations call Sharon Hogan at (313) 763-5128.

A shorter presentation will be given in East Lansing on August 23, from 8:30 AM to 12 Noon. Kriss Ostrom - (517) 355-7641 - has more information.

AROUND THE COLLEGES

HENRY FORD COMMUNITY COLLEGE

Don McCreery and Irv Sattinger attended a staff meeting at Henry Ford on June 8 to describe SEMTAP - its philosophy, goals, and the role of the college and its staff in the program. President Stuart Bundy's enthusiastic endorsement of SEMTAP set the tone for an interesting and profitable discussion of various alternatives, especially in the area of future training programs.

JACKSON COMMUNITY COLLEGE

On June 6 Jackson's Advisory Committee met to discuss the news conference and to make plans for the first series of three seminars next fall.

The committee is also thinking about "Symposium 77" which will be a series of three half-day seminars in February aimed at junior and senior high school students who are considering a career in science or engineering. SEMTAP will be involved in providing resource people to help at the symposium, as will the Space Center and several local businesses.

C. S. MOTT COMMUNITY COLLEGE

Al Matherne and others at Mott are organizing a Task Force to handle energy projects in the Flint Area. At a meeting on June 16, interested staff members from the college and ERIM met with Mayor James Rutherford and representatives of Flint utilities and businesses to discuss various ways they could work together to alert the community to the energy crisis and then provide some means to alleviate it.

Mott would be the focal point of the project, which would benefit the residents of Genessee County. The city is expected to appoint someone soon to coordinate further planning with the college and ERIM.

SCHOOLCRAFT COLLEGE

Ron Griffith has decided to change the date of the IR Diagnostics seminar from November 24 to December 1. Somehow, he decided not many people would be interested in coming to a seminar on Thanksgiving Day!

WASHTENAW COMMUNITY COLLEGE

Edith Jacques has set July 12 as the time for the first meeting of the Washtenaw Citizens Planning Committee. Gunnar Myran, President of the College, will be on hand to introduce SEMTAP, along with Don McCreery and Gene Thomas, who will explain the program in more detail.

WAYNE COUNTY COMMUNITY COLLEGE

Wayne County's Citizens' Advisory Committee met for the first time at the college on June 28. The committee, which will consist of volunteers from the business community and the Wayne staff, will advise Pat Drabant, Marguerite Farmer, and Mark McPherson on the development and organization of the project. It will also form technical committees when necessary, and members will serve as advocates for - and provide a link with - SEMTAP and the community.

At this first meeting Don McCreery gave an introduction to SEMTAP and spoke a bit about the need for energy conservation; then Drabant, Farmer, and McPherson discussed the project at Wayne. There was, they report, a very positive response from the group.

AT ERIM

DISALVO DIRECTS A SAMPLE COMPUTER SEARCH

Eight colleges sent staff members to the DIALOG training course at ERIM on June 13. Joe DiSalvo from Lockheed spent the morning instructing the participants in the "basics" of DIALOG - its capabilities, strategies, and commands. The afternoon portion of the all-day session was devoted to practice on the four terminals that had been set up.

Claudia Vandermade reports that the people (mostly librarians) who attended all learned quickly and were very enthusiastic. DIALOG services will be available at most of the colleges in the fall term.

FROM THE EDITOR

First, an announcement. We have the displays and two SEMTAP brochures at last! They will be distributed to all the colleges beginning the week of July 18. Supplies of the general brochure are limited, unfortunately, but we will have duplicate printers negatives made so that each college that needs more can have them reprinted as necessary.

Next, a request. Could I have copies, please, of any SEMTAP articles that appear in your local press? Please note on the copy the name of the paper, the date, and the page number. Since we don't have a clipping service, this will be not only helpful, but vital. Many thanks!

And one final announcement. This is the last you'll hear from me until September. Have a nice summer!

-Judy Steeh

The SEMTAP Newsletter is published monthly for the Southeastern Michigan Technology Assistance Program. News and comments should be sent to Judy Steeh, Environmental Research Institute of Michigan, P.O. Box 618, Ann Arbor, MI 48107. Telephone: (313) 994-1200, Ext. 306.

SEMTAP

NEWSLETTER

SEPTEMBER 1977

Southeastern Michigan Technical Assistance Program

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Macomb County Community College
Paul Thacher
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Monroe County Community College
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Charles Stewart Mott Community College
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Schoolcraft College
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St. Clair Community College
Jerry Lynch
(313) 984-3881, x235

Washtenaw Community College
Edith Jacques
(313) 482-2230

Wayne County Community College
Patricia Drabant
(313) 832-4750

STATE OF MICHIGAN RECEIVES ENERGY GRANT

The Energy Research and Development Administration (ERDA) recently awarded $1.1 million to the Michigan Energy Administration to begin operation of an Energy Extension Service (EES).

SEMTAP is one of the existing delivery networks chosen to help transfer energy technology, along with the U.S. Department of Agriculture's Cooperative Extension Service and the Energy Administration's own information clearinghouse. The program has two target groups: small businesses and youth aged 14-18.

Nine other states received similar grants: Alabama, Connecticut, New Mexico, Pennsylvania, Tennessee, Texas, Washington, Wisconsin, and Wyoming.

COORDINATORS PLAN FALL ACTIVITIES

College coordinators met twice during the summer — on July 27 and August 24 — to plan SEMTAP activities for this fall.

The fall technical assistance program was reduced from three seminars to two — one on solar energy and one on energy conservation technology — which will be aimed at businesses. Several colleges are planning to use the "extra" day to offer a home winterization course geared to homeowners.

(Continued)

COMING EVENTS

September 14 - Coordinators meet at ERIM; solar energy and energy conservation technical training sessions at ERIM

September 20 - SEMTAP/League of Women Voters Energy Day at Washtenaw

September 28 - Solar Energy Seminar at Wayne

Procedures for dealing with responses to the questionnaires that were sent out in August were explained at the second meeting. Another point that was thoroughly discussed was the important role the Advisory Committee can play in building a successful program.

The next coordinators meeting will be held at ERIM on September 14, beginning at 9:30 am.

NEW SOURCES FOR ENERGY INFORMATION

Claudia Vandermade has located several new sources of information about energy publications for libraries interested in expanding their collections.

- The Energy Information Center at Stanford University periodically distributes the "Energy Information Center Selected Acquisitions List." Although they will not supply actual documents, their list is an excellent source of information about new publications in the field. To be put on the mailing list, write to:

  Energy Information Center
  Building 500, Room 500A
  Stanford University
  Stanford, CA 94305

- The National Solar Heating and Cooling Information Center has several brochures available in multiple copies on topics such as "State Solar Legislation," Solar Hot Water and Your Home," and "Information Cards on Solar Systems." They also have information about films on solar energy. Contact:

  The National Solar Heating and Cooling
  Information Center
  P.O. Box 1607
  Rockville, MD 20850

- ERDA has just notified us of several excellent documents that are available free of charge:

  "Installation Standards for One and Two Family Dwellings and Multifamily Housing Including Solar." Sheet Metal and Air Conditioning Contractors' National Association, Inc., The Better Heating and Cooling Bureau, 1977.

  "Interim Performance Criteria for Commercial Solar Heating and Combined Heating/Cooling Systems and Facilities." NASA-Marshall, Document No. 98M 10001, Revision: Basic, February 28, 1975.

  "Interim Performance Criteria for Solar Heating and Cooling Systems in Commercial Buildings." Prepared by National Bureau of Standards for ERDA, No. NBSIR-76-1187, November 1976.

To obtain these documents write to:

U.S. Energy Research and Development Administration
Technical Information Center
P.O. Box 62
Oak Ridge, Tennessee 37830

ERDA is trying to better organize and control its brochure distribution. Requests for more than 100 brochures must now be directed to:

Dr. Burrell Wood
USERDA
Office of Public Affairs
Washington, D.C. 20545

There should be no problem obtaining the brochures, but it would be a good idea to include a note telling Dr. Wood why you need them.

AROUND THE COLLEGES

HENRY FORD COMMUNITY COLLEGE

Stu Gingrich has arranged to send his SEMTAP display unit to the Hyatt Regency Hotel in Dearborn for the annual Michigan Library Association meeting. About 1600 librarians are expected to attend the conference, which will run from September 30 to October 2.

JACKSON COMMUNITY COLLEGE

The advance publicity campaign for Jackson's fall seminar program is well underway. SEMTAP got a big boost in August from the Citizen-Patriot which ran a fairly detailed description of the overall program and of JCC's proposed seminars and follow-up courses. Another article, in the JCC Newsletter "Momentum," was aimed at people associated with the college; a large mailing is also planned. Jackson's seminars are scheduled for October 5 and November 2.

MONROE COUNTY COMMUNITY COLLEGE

Ed Dwyer is using another method to inform members of his local business community. On July 19 he arranged for Irv Sattinger of ERIM to speak to about 35 members of the Monroe Rotary Club at one of their weekly luncheon meetings. Then on September 1 Sattinger and Gene Thomas were guest speakers at a dinner meeting of the Home Builders Association of Monroe County. Thomas described SEMTAP's objectives and

programs; then Sattinger spoke on using solar energy for residential space heating and cooling systems. At both meetings the talks generated considerable enthusiasm.

WAYNE COUNTY COMMUNITY COLLEGE

At a meeting on August 2 Wayne's Advisory Committee accepted a SEMTAP concept paper for the college and also finalized plans for the two technology assistance seminars scheduled for September 28 and October 26. The seminars will be held at Barth Hall, St. Paul's Cathedral, Woodward at Warren, in Detroit; there will be a $5 registration fee. The college also plans to offer a free home winterization seminar on October 12. Mark McPherson, who is in charge of publicizing the seminars, intends relying mainly on newspaper advertisements and brochure mailings.

WASHTENAW COMMUNITY COLLEGE

While many colleges have been throwing all their resources this summer into preparing for the two fall seminars, Edith Jacques and the Washtenaw Advisory Committee also have been organizing other events.

On September 20 the college and the League of Women Voters will co-sponsor an all-day Energy Conference. Speakers from the University of Michigan, Michigan State, and ERIM will describe ways to get information about energy conservation, public and private energy choices, and practical ways to conserve energy. The program runs from 9:30am to 3:30pm and there is no registration fee.

Washtenaw will also be co-sponsoring a half-day seminar on October 11 with the Ypsilanti Realtors Association entitled "The Role of the Realtor in Energy Conservation," in addition to the two technical assistance seminars on October 19 (solar energy) and November 9 (energy conservation).

In her efforts to publicize the various programs, Jacques says she has received a lot of support from a local radio station, WAAM. In July she taped a series of interviews on upcoming SEMTAP activities, and WAAM has been using them in news programs ever since. The response has been very good; each "spot" has resulted in several phone calls and enquiries.

AT ERIM

Much of the summer at ERIM has been spent preparing for the fall/winter seminar program — putting together materials, meeting with technical staff from the colleges, etc.

On August 14 Claudia Vandermade conducted a final DIALOG training session at Mott for Chuck Thompson, one of Mott's librarians, and for

Ruth Foley and Dale Casper of St. Clair. All 10 colleges now have staff trained to use the DIALOG procedures for searching data bases.

FROM THE EDITOR

I got back from vacation to find my desk almost buried under a stack of meeting minutes, memos, brochures, and press clippings — all about SEMTAP. Believe it or not, I was glad to see that pile — keep them coming!

Once again, could everyone please note the name and date of the paper on all press clippings. It makes them much more valuable as references. Thanks.

-Judy Steeh

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SEMTAP

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OCTOBER 1977

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OCTOBER MEETING DATE CHANGED

Because of a number of conflicts, the coordinators' meeting originally scheduled for October 12 will now be held on October 20. The time is still 9:30 am and the place still ERIM. In addition to the usual agenda, Dennis Sykes, Director of the Michigan Energy Extension Service (EES), will be attending to meet more of the people involved with SEMTAP and to get a feel for some of the specific concerns of the colleges.

MILLIKEN TO SPONSOR WOOD ENERGY CONFERENCE

An all-day conference on wood energy will be held at the Chrysler Center on the University of Michigan's North Campus on Tuesday, November 29, beginning at 8:30 am. The program is jointly sponsored by the Governor's Office and the University, and will focus on the development and utilization of wood as an alternate energy source. Emphasis will be on commercial, institutional, and industrial development, and the discussions have been designed to strike a balance between general topics and technical ones.

(Continued)

COMING EVENTS

October 5 - Solar Energy seminar at Jackson

October 6 - Solar Energy seminar at Mott
Energy Conservation seminar at Schoolcraft

October 10 - Solar Energy technical staff meet at ERIM

October 11 - Joint energy seminar with Ypsilanti Board of Realtors at Washtenaw

October 12 - Home Weatherization seminar at Wayne

October 19 - Solar Energy seminar at Washtenaw

October 20 - Coordinators meet at ERIM
Energy Conservation seminar at Monroe

October 26 - Energy Conservation seminar at Wayne

October 27 - Energy Conservation seminar at Jackson

October 29 - Solar Energy seminar at Henry Ford

The registration fee of $30.00 covers lunch and dinner, and advance registration is strongly encouraged. To register in advance, send your name and address with the fee to: U of M Extension Service, Conferences and Institutions, 412 Maynard Street, Ann Arbor, MI 48109.

For more information contact Dr. Michel Hiser, Energy Transition Team, 209 Hollister Building, Lansing, MI 48933 (telephone (517) 374-9648).

COORDINATORS MEET AT ERIM

Coordinators from eight colleges met at ERIM on September 14 to work through an agenda covering a wide range of topics. Some of the items discussed were the bulk mailing of the revised brochures produced at ERIM; promotional plans at the colleges; responses to the first mailing; planned modifications to the SEMTAP display; and several financial questions.

At the end of the meeting the coordinators were joined by technical staff members who had been holding joint sessions to work out the details of the technical assistance seminars.

The next coordinators meetings will be held on October 20 and November 9.

AROUND THE COLLEGES

HENRY FORD COMMUNITY COLLEGE

Stu Gingrich and his staff are currently getting ready to mail 3000 flyers advertising Henry Ford's Solar Energy seminar on October 29. Meanwhile the people who will be giving the technical presentations — Mike Davis, Jim Martini, and John Xerri — are putting the final touches on their portions of the program. Xerri is also working closely with Jordon College, which has a very strong solar energy program.

HIGHLAND PARK COMMUNITY COLLEGE

Roger Felix is working hard this month to finalize the program for the seminar at Highland Park on November 4. Felix plans to combine both the Energy Conservation and Solar Energy programs into one event. Staff at Highland Park involved with the seminar include John Cates, Ed Garvin, Dale Miller, and Bill Wilcox.

JACKSON COMMUNITY COLLEGE

The technical assistance program for small businesses is really moving at Jackson! Bob Hanlin began turning people away from the Solar Energy seminar (scheduled for October 5) when pre-registration topped 215. The entire seminar will be presented by Irv Sattinger (ERIM) and Eugene Yehl (Consumers Power Company).

Two solar mini-courses, which will begin on October 26 and 31 and which together can accomodate up to 80 people, are also expected to fill up. Then, if during the mini-courses enough people request more in-depth coverage of specific technical areas, JCC will try to put more courses together for next year.

The Energy Conservation seminar has been re-scheduled for October 27. While Hanlin does not expect the same overwhelming response as for the first ("Solar" appears to be a magic word in Jackson just now), he is confident of a respectable turnout.

Two other factors he feels may have been instrumental in JCC's success are a strong publicity campaign and the low registration fee: $5 with dinner, $1 without.

MACOMB COUNTY COMMUNITY COLLEGE

Macomb's technical assistance seminars are not until November, but a news release and flyers are already prepared for the Energy Conservation seminar on November 5.

Paul Thacker has also been conducting exploratory meetings with the local Chamber of Commerce and other business groups, with an eye toward establishing a "small business center" on Macomb's South Campus in Warren.

MONROE COUNTY COMMUNITY COLLEGE

Preparations for Monroe's Energy Conservation seminar on October 20 are well underway, with brochures ready for mailing and a newspaper campaign in the planning stages.. Meanwhile Ed Dwyer, Bob Nevel, and Dick Teaff are working out details of the technical program and Chuck Roelant is getting the practical side organized.

C.S. MOTT COMMUNITY COLLEGE

Last March, Mott scored SEMTAP's most spectacular success up to that time with almost 200 attendees at their "Flint Energy Update." But with 185 people pre-registered for the Solar Energy seminar as of the end of September, Al Matherne is expecting to go well over the 200 mark on October 6.

Matherne has put together a program featuring Dennis Sykes (Director of the Michigan EES) as the dinner speaker, followed by a strong technical team: Don McCreery and Irv Sattinger from ERIM; Dennis Saturnino, a chemistry instructor at Mott; and John Cates, instructor in physics from Highland Park.

The success of the first seminar certainly helped engender a positive response to this program, but Matherne feels that most of the credit for the large registration must go to members of the Flint Area Energy Task Force and the Mott in-house Advisory Committee, who did a fantastic job of publicizing the program.

SCHOOLCRAFT COLLEGE

Ron Griffith is expecting at least 60 people at Schoolcraft's Energy Conservation seminar on October 6, and already has about 40 signed up for Solar Energy on November 17.

Both will be afternoon programs. The Energy Conservation seminar will involve people from several colleges — John Lesko and Dick Rheinholt from Schoolcraft, Ed Garvin from Highland Park, Jim Martini from Henry Ford, and Rolf Anselm from Mott — in addition to Gene Thomas (ERIM).

Griffith is also busy making budgeting and logistical arrangements so that Schoolcraft can set up an "official" SEMTAP office as soon as possible.

ST. CLAIR COUNTY COMMUNITY CCLLEGE

St. Clair's first technical assistance seminar, on solar energy, is scheduled for November 12, and Jerry Lynch plans to center most of his promotional activities around a brochure mailing, using the Dun Marketing Service and local Chamber of Commerce lists.

In addition, two of the college's instructors are currently taking a 16-week course in energy conservation at Lampton Community College in Sarnia, Ontario, so that they can work more effectively with the SEMTAP program.

WASHTENAW COMMUNITY COLLEGE

The energy conference co-sponsored by Washtenaw and the Washtenaw County League of Women Voters attracted over 100 people; according to the evaluation forms, which were overwhelmingly positive, all the attendees found it an interesting and informative day.

For October Edith Jacques has two seminars scheduled. The first, called "The Role of the Realtor/Builder in Energy Conservation," is being co-sponsored by SEMTAP and the Ypsilanti Board of Realtors. The seminar will be held in the morning on October 11 and Jacques is again expecting an attendance of over 100. The program will feature Glenn Hellner, Sales Manager of Guenther Building Company, on the philosophy and economics of building energy-efficient structures; Thomas Hosington of the Michigan Energy Administration, giving an overview of impending legislation and some of the policies of the MEA; and Roland Ledebuhr, Regional Vice President of the National Association of Realtors, who will speak on the need for involvement on the part of realtors.

Jacques has blanketed Washtenaw County with brochures advertising her technology assistance seminars. Although there is no pre-registration, she says that the number of telephone inquiries since the mailing indicate she should have a good turnout for the Solar Energy seminar on October 19.

Washtenaw too hopes to have at least a part-time SEMTAP office in operation in the near future.

WAYNE COUNTY COMMUNITY COLLEGE

Wayne's two Solar Energy seminars on September 28 went very well, from all accounts, and attracted almost 100 attendees between them. Pat Drabant says she found the evaluation forms filled out after the meeting most helpful; the comments indicated a lot of interest in solar energy and a good deal of support for further courses on the topic.

During October Wayne has two more seminars scheduled: Home Weatherization on the 12th and Energy Conservation on the 26th. About 50 people are already registered for the former. The attendance at both may be helped considerably by Bill Toothacker and Sam Ajiri's appearance on "Detroit Today," a public

television broadcast, on October 11 at 10 pm. Toothacker and Ajiri will be interviewed about the seminars and about the SEMTAP program in general.

AT ERIM

Most of September at ERIM has been devoted to organizing the people and materials needed for all the seminars coming up in October. Gene Thomas and Irv Sattinger report that things are falling into place very nicely. Furthermore, Jack Livisay is in the process of developing standard evaluation questionnaires for use at the seminars.

Some people even found time to squeeze in other activities. Gene Thomas, for example, spoke to "New Detroit, Inc." — a group of businessmen and community leaders concerned with upgrading life in the city — to explain the SEMTAP program. NDI is already interested in energy conservation; two days before Thomas met with them they had adopted as one of their objectives for 1978 a resolution to "Promote the retention of jobs in the Detroit area by encouraging energy conservation efforts ... through education and information dissemination." Needless to say, they were very receptive to SEMTAP and enthusiastic about its potential.

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NEWSLETTER
NOVEMBER 1977

NOVEMBER IS ENERGY MONTH

Governor Milliken has designated November as the second annual Energy Month in Michigan. The purpose is to increase the awareness of Michigan's citizens about the state's energy problems and the steps they can take individually to help solve those problems.

Michigan is particularly vulnerable to the energy crisis because it imports almost 95% of its energy from other states and countries.

A toll-free line (1-800-292-4704) will be available during November for citizens to call for energy information.

STATE ENERGY BILLS INTRODUCED

According to the Michigan Energy Administration's monthly News Summary, Representative Michael Bennane (D-Detroit) has introduced no less than eight energy conservation bills this fall. All have been referred to committee.

HB 5421 - Prohibits outdoor lighting of commercial establishments during non-business hours.

HB 5422 - Prohibits inclusion of heating or air conditioning in new or renovated commercial parking facilities.

Referred to the Committee on Urban Affairs, Rep. William Ryan (D-Detroit), chair.

(Continued)

COMING EVENTS

November 3 - Energy Conservation seminar at Mott

November 4 - Energy Conservation seminar at Highland Park

November 5 - Energy Conservation seminar at Macomb

November 9 - Coordinators meet at ERIM
Energy Conservation seminar at Washtenaw

November 12 - Solar Energy seminar at St. Clair

November 17 - Solar Energy seminar at Schoolcraft

November 21 - Nuclear Fusion lecture at Mott

November 29 - Wood Energy Conference at University of Michigan

HB 5423 - Prohibits the sale of consumer products which require for their operation the use of a gas pilot light.

HB 5424 - Prohibits the sale of television sets which have an "instant on" feature which requires a continuous flow of electricity to certain components.

HB 5425 - Prohibits the sale or use of decorative lamps which use either natural gas or liquid propane gas as their source of fuel.

HB 5426 - Provides for the establishment of maximum temperatures (65°F) in habitable dwellings, public buildings, and places of employment and provides penalties for non-compliance.

Referred to the Committee on Economic Development, Rep. Jack Gingrass (D-Iron Mountain), chair.

HB 5427 - Permits an income tax deduction of 50% of the total cost to purchase and install a solar, wind or water energy conversion device.

HB 5428 - Permits an income tax deduction of an amount equal to 100% of the cost of materials and installing insulation or improvement of existing insulation of a taxpayer's homestead.

Referred to the Committee on Taxation, Rep. Matthew McNeely (D-Detroit), chair.

COORDINATORS MEET EES OFFICIALS

Dennis Sykes and Bill Stevens of the Michigan Energy Extension Service (EES) came down from Lansing for the college coordinators' October 20 meeting in Ann Arbor, to find out first-hand about activities and concerns at the colleges.

Sykes presented an overview of major EES plans and objectives, and Stevens duscussed the EES evaluation program — the rationale behind it, how it would work, and what sort of information was needed from it.

Each of the coordinators at the meeting also gave a brief history of the SEMTAP program at his or her college, and outlined future plans.

The next meeting is scheduled for November 9. It will be held at ERIM, at 9:30 am.

AROUND THE COLLEGES

HENRY FORD COMMUNITY COLLEGE

Almost 70 people appeared for Henry Ford's Solar Energy seminar on October 29, presented by Mike Davis, Jim Martini, and John Xerri of the college staff, along with Irv Sattinger from ERIM. Although the evaluations

have not been studied yet, Stu Gingrich reports that feedback from the attendees was very good.

The next item on Gingrich's agenda is the Energy Conservation seminar on December 10.

HIGHLAND PARK COMMUNITY COLLEGE

Roger Felix hopes to have around 40 people at the Highland Park energy seminar on November 4.

Rolf Anselm (Mott), Ed Garvin (Highland Park), and Jim Martini (Henry Ford), along with Don McCreery, Irv Sattinger, and Gene Thomas (ERIM), will be presenting a program that combines elements of both the Solar Energy and Energy Conservation seminars.

JACKSON COMMUNITY COLLEGE

As expected, Jackson's Solar Energy seminar on October 5 was sold out, with about 215 in attendence. According to questionnaire responses, 94% of the people who handed in replies felt that the material was relevant to some degree. Although only 9% said they hoped to get involved with solar energy systems in the future, 74% expressed interest in attending a mini-course on the subject.

In fact, both solar energy courses (which began on October 26 and 31) filled up, with 40 people each. Irv Sattinger from ERIM and Gene Yehl of Consumers Power Company, who presented the seminar, are also teaching the courses. The classes are meeting once a week, for eight two-hour sessions.

About 100 people — some 75% of whom represented small businesses or industry — registered for the Energy Conservation seminar on October 27. The seminar was handled entirely by Patrick Miller of Consumers Power Company. Miller, who has had considerable experience as a consultant and as an adjunct instructor at the college, used the same basic outline and materials generated for the seminars at other colleges. Using overhead transparencies, he also took the audience through two kinds of energy audits (one for commercial, small business, and residential establishments and one for industrial facilities), showing various ways to evaluate energy consumption, resolve problems, and calculate savings of money or energy. The seven-week mini-course on energy conservation begins on November 3, but preliminary registration figures were not available as we went to press.

MACOMB COUNTY COMMUNITY COLLEGE

Macomb's Saturday-morning Energy Conservation seminar will be held on November 5. Rolf Anselm, Ed Garvin, John Lesco (Shoolcraft), Jim Martini, and Gene Thomas will be giving technical presentations.

MONROE COUNTY COMMUNITY COLLEGE

The response to Monroe's Energy Conservation seminar on October 20 surprised even the organizers of the event; so many people showed up, in fact, that they couldn't fit into the room that had been reserved and had to be moved en masse to another, larger one. Perhaps more importantly, the some 60 attendees showed a great deal of interest in the problems and techniques discussed, and some lecturers were kept until nearly 11 pm answering questions. Appearing at Monroe were Ed Garvin, John Lesco, Jim Martini, Dick Reinholt (Schoolcraft), and Gene Thomas.

Encouraged by their success, Ed Dwyer, Bob Nevel, and Dick Teaff are now busy finalizing plans for their November 16 Solar Energy seminar.

C.S. MOTT COMMUNITY COLLEGE

The Solar Energy seminar at Mott on October 26 fulfilled Al Matherne's expectations by attracting 202 people, 92% of whom expressed an interest in a follow-up mini-course.

The Energy Conservation seminar on November 3 will feature Janis Settle, WWJ-TV's energy specialist, as the dinner speaker, and Matherne expects a good turn-out for this event as well.

On November 21 Mott is sponsoring a lecture by Dr. Morris Levitt, Executive Director of the New York-based Fusion Foundation, entitled "Nuclear Fusion as an Energy Alternative." The program begins at 7 pm in the College Center and admission is free. Everyone involved with SEMTAP is cordially invited; call Doug Laine at Mott for more information.

SCHOOLCRAFT COLLEGE

Schoolcraft just posted a new position: the college will soon be advertising nationally for a Coordinator, Business and Industrial Programs, whose primary responsibility is listed as the coordination, development, and promotion of Project SEMTAP. Ron Griffith hopes to have someone on the job by the beginning of next year.

The Energy Conservation seminar on October 6 attracted almost 50 people, who seemed, on the whole, to be well satisfied with the information they received. Betty Andrews, the Assistant Dean of Community Services, is working no on the Solar Energy seminar scheduled for November 17. She reports that the number of pre-registrations indicates that it too should attract a good crowd.

ST. CLAIR COUNTY COMMUNITY COLLEGE

Don McCreery and Irv Sattinger will be giving the lectures at St. Clair's Solar Energy seminar on November 12.

WASHTENAW COMMUNITY COLLEGE

Washtenaw's seminar for realtors on October 11 had 108 attendees. Most, of course, were real estate agents, brokers, appraisers, etc., but there were also a smattering of people from the various building trades, students, nurses, and even a farmer. Although the program focussed on problems facing the realtor, Edith Jacques feels that others were able to get a lot of useful information as well.

Seventy-eight people appeared for the Solar Energy seminar on October 19, which was presented by John Cates (Highland Park), Dwight Hinds and Milton Pool (Washtenaw), and Irv Sattinger. Jacques says that the attendees were very happy with the information they were given, though several would have also liked to know more about specific things that individuals can do with solar energy.

Washtenaw's Energy Conservation seminar is scheduled for November 9, and Jacques expects 70-80 registrants.

WAYNE COUNTY COMMUNITY COLLEGE

Some 80 people came to Wayne's Home Weatherization seminars on October 12. The program was presented by Sam Ajiri, a member of the college staff. Tom Marchesano, who sits on Wayne's Advisory Committee, Don McCreery, and Gene Thomas handled the technical presentations. Together they discussed the energy situation in Michigan, various ways to evaluate energy comsumption in the home, and several methods for reducing it.

The Energy Conservation seminars on October 19 had a total of about 30 attendees. With a smaller number of people to work with, the speakers — Ajiri, Rolf Anselm, Ed Garvin, Jim Martini, and Thomas — experimented with a new format. Instead of lecturing to the audience they adjourned to another room and held a more informal round-table discussion of the topics on the agenda. From all reports the method worked well, and audience participation enhanced rather than reduced the value of the seminars.

Pat Drabant tells us that the number of phone calls asking for information and/or technical assistance since the seminars seems to indicate a real, continuing interest in the topics covered.

AT ERIM

The SEMTAP display that once graced ERIM's lobby has been moved to Lansing, where it can now be found in the EES office. All the members of the SEMTAP team here were sorry to see it go. From behind the receptionists' desk, however, came muffled cheers .... Shelia and Virginia have had the soundtrack memorized for at least the last two months!

FROM THE EDITOR

There have been comments made at several seminars about the quality — or lack of it — of some of the visuals being used. I feel very strongly that sloppy or illegible slides, etc. reflect adversely upon both the speaker and the information being conveyed — especially when the audience is composed of businessmen who are used to seeing fairly professional presentations. We have a lot of material here on the theory and practice of illustrating a technical presentation, and will be glad to talk to anyone interested in upgrading the quality of his or her slides.

Once more (and this is as boring for me as it is for you), please don't forget to send me copies of your flyers, newspaper clippings, and ads. I'm not just being a packrat; that material is priceless when it comes time to document our efforts in final reports, proposals, and the like.

— Judy Steeh

The SEMTAP Newsletter is published monthly for the Southeastern Michigan Technology Assistance Program. News and comments should be sent to Judy Steeh, Environmental Research Institute of Michigan, P.O. Box 8618, Ann Arbor, MI 48107. Telephone: (313) 994-1200, Ext. 306.

SEMTAP

NEWSLETTER
DECEMBER 1977

Southeastern Michigan Technical Assistance Program

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Charles Stewart Mott Community College
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Schoolcraft College
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(313) 984-3881, x235

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Patricia Drabant
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STATE ENERGY EMERGENCY CENTER ESTABLISHED

The Michigan Energy Emergency Center (EEC), a joint venture of the Energy Administration and the Michigan Public Service Commission, began operation on November 1.

Governor Milliken has made the EEC responsible for devising and operating a contingency plan to cope with any unexpected energy shortages or emergencies during the winter of 1977-78. To this end it will gather data, coordinate information on the statewide energy situation, and analyze the impact of decisions that affect the supply and demand for natural gas, electricity, coal, petroleum products, and liquified petroleum gas. In addition, it will be the central contact for Michigan with the federal Department of Energy's EEC.

ENERGY: A PUBLIC EDUCATION PROBLEM

In the end, the energy problem will be solved only by an extensive public education program, not by technology — a statement that was emphasized when a recent Gallup Poll showed that only slightly more than half of the American public is even aware that there is an energy crisis.

John King of the Energy Research and Development Administration has come up with five reasons why. Speaking to the Southeast Public Relations Institute at the University of Georgia School of Journalism, he explained that

(1) the whole subject of energy is controversial — and this includes solar energy as well as more obvious topics like nuclear energy

(continued)

COMING EVENTS

December 3 - Solar Energy seminar at Macomb

December 10 - Energy Conservation seminar at Henry Ford

December 14 - Coordinators meet at ERIM

(2) the public doesn't want to hear the message — lifestyles are not changing in response to the changing energy situation, and the American people are turning a blind eye to the problem

(3) the language of energy is atrocious — the public doesn't understand the terminology

(4) spokesmen for the federal government and for the oil and energy industries lack credibility to an incredible degree

(5) for every study that indicates a problem there is another that contradicts it.

COORDINATORS MEET AT ERIM

At their November 9 meeting the SEMTAP coordinators had an opportunity to meet two new members of the ERIM team — Lou Galen and George Zissis — and to hear George Peace describe some plans for the future. A few of the items on the tentative agenda include the mailing of an energy audit workbook to several thousand small businesses, another series of seminars and courses in April and May, and a two-day national seminar in May or June.

Stu Gingrich, who will be acting as the focal point for the colleges vis à vis the Energy Extension Service, and Bill Stevens, who came down from Lansing to attend the meeting, conducted a discussion of the course evaluations, which will be tested at Jackson and reviewed at the December meeting. Stevens also emphasized that he would welcome comments and suggestions on the evaluations at any time; his telephone number is (517) 373-0480.

The next meeting will be held at ERIM on December 14.

AROUND THE COLLEGES

HENRY FORD COMMUNITY COLLEGE

Stu Gingrich is in the process of mailing out brochures advertising Henry Ford's December 10 Energy Conservation seminar — and hoping that the public's preoccupation with Christmas won't cut into his attendance figures too much. Scheduled to lecture at the meeting are Rolf Anselm (Mott), Ed Garvin (Highland Park), John Lesco (Schoolcraft), Jim Martini (Henry Ford), and Gene Thomas (ERIM).

HIGHLAND PARK COMMUNITY COLLEGE

Highland Park held a seminar on November 4 that contained material from

both the Solar Energy and Energy Conservation seminars. Although Roger Felix was a bit disappointed by the turnout (about 25 people), he feels that the people who did attend were motivated and got a lot out of the experience. Most of the attendees were faculty, students, and maintenance personnel from Highland Park and other schools, with a scattering of people from outside the academic community.

Felix's future plans involve obtaining a half-time appointment for a faculty member to help work with local business groups, set up new courses, and "market" SEMTAP both within and outside the college.

JACKSON COMMUNITY COLLEGE

As the Solar Heating and Cooling mini-course moved into its last few weeks, Irv Sattinger handed out a questionnaire to the students, to be filled out in their own time. Of the 90 students in the two sections, 44 had returned their questionnaires as we went to press; their replies indicate that although most were connected with small businesses — manufacturing, engineering and science, and other technical fields — the majority planned to apply the information to their own homes. Twelve of the students did intend using it to expand their businesses. Sattinger reports that he is not only very happy with the way the classes are going and with the amount of interest shown by the students, but he also feels that this first "shakedown cruise" will result in a good solid set of material for future courses.

Sixty-six people came to Jackson's Energy Conservation seminar on November 2, and sixteen signed up for the mini-course. One full session of the seven-week course, which is being taught by Patrick Miller of Consumers Power Company, will be spent hearing various industry representatives describe energy-saving products and techniques; it will be a joint session with the people from the solar energy classes.

According to Bob Hanlin, the major problem encountered by students in both courses has been that seven to eight weeks is not really enough time to digest and become familiar with all the procedures outlined.

MACOMB COUNTY COMMUNITY COLLEGE

The Energy Conservation seminar at Macomb on November 5 attracted some 45 attendees. Rolf Anselm (Mott), Ed Garvin (Highland Park), John Lesco (Schoolcraft), Jim Martini (Henry Ford), and Gene Thomas (ERIM) gave the technical presentations. Literature describing the mini-course, which will begin the last week in January, was distributed at the seminar along with registration forms.

At the end of the month Paul Thacker had received about 60 pre-registrations for the Solar Energy seminar scheduled for December 3.

MONROE COUNTY COMMUNITY COLLEGE

Ed Dwyer, Bob Nevel, and Dick Teaff were confident before their November 16 Solar Energy seminar; with 70 people pre-registered they could be certain of a turnout that they considered quite respectable, given the population and level of interest in Monroe County. What they were not prepared for, however, was the sight of some 140 people crowding into the room where the program was to be held. The group did not move to a larger room as they did last month, however — since the college had turned the heat down to conserve energy, they needed those close-packed bodies to generate a bit of warmth! John Cates (Highland Park), Dwight Hinds (Washtenaw), and Don McCreery and Irv Sattinger (ERIM) were the lecturers.

December will be spent planning the Energy Conservation and Solar Energy mini-courses, which are scheduled to begin in January.

Ed Dwyer and Bob Nevel retired this month, and Dick Teaff is now the SEMTAP coordinator at Monroe. On behalf of everyone involved with the program we are pleased to welcome Dick and to wish Ed and Bob many happy years in retirement.

C.S. MOTT COMMUNITY COLLEGE

About 120 people attended Mott's Energy Conservation seminar on November 3 — about the number Al Matherne had expected, considering that solar energy, which generally has had more popular appeal, had attracted over 200. Lecturers at the event were: Rolf Anselm (Mott), Ed Garvin (Highland Park), John Lesco and Dick Reinholt (Schoolcraft), Jim Martini (Henry Ford), and Gene Thomas (ERIM).

On November 21 Matherne combined a dinner meeting of the Flint Energy Task Force with a lecture on nuclear fusion by visiting scientist Dr. Morris Levitt. He was pleasantly surprised when almost 100 people showed up for Dr. Levitt's lecture, which was open to the public free of charge.

Matherne's standard procedure for publicizing his programs involves newspaper advertisements, news releases, and mailing announcements to a carefully compiled list of just over 200 people who have attended similar events at the college. His attendence figures, which normally range between 100 and 200, indicate that he has pinpointed the group of technologists and small businesspeople in the Flint area who are most concerned with energy conservation and who can be expected to attend programs on more than one aspect of the topic.

On December 3-4 Mott will be co-sponsoring a two-day seminar with Jordan College. The program, titled "How to Build and Install and Understand Solar Heating Systems," will be the same one Jordan and Henry Ford co-sponsored earlier this year. It is designed for do-it-yourselfers and technicians from the building, plumbing, heating and cooling, and insulation trades who wish to actually become involved in building and installing solar heating systems.

SCHOOLCRAFT COLLEGE

Despite a few problems with audio-visual equipment, the Solar Energy seminar at Schoolcraft on November 17 on the whole went very well. Irv Sattinger, who lectured along with John Cates (Highland Park) and John Lesco and Ron McBride (Schoolcraft), reports that the audience appeared interested and receptive to what they had to say. There were about 40 attendees.

According to Ron Griffith the college has received 110 applications for the recently advertised post of Coordinator, Business and Industrial Programs. With that many people to choose from, he is confident that he will be able to find the right person for the job.

ST. CLAIR COUNTY COMMUNITY COLLEGE

At St. Clair, as at Monroe, the number of walk-ins for the Solar Energy seminar far exceeded expectations. Eighteen people pre-registered for the event, but 56 actually attended — virtually all of them connected with small businesses in St. Clair County. Don McCreery and Irv Sattinger gave the presentations at the seminar, which was held on November 12. President Richard L. Norris introduced the program.

Jerry Lynch informs us that the SEMTAP display unit, which has been moved around the campus and shown in every building, will start making the rounds of local high schools in January.

WASHTENAW COMMUNITY COLLEGE

Washtenaw's Energy Conservation seminar on November 9 followed the pattern set at most of the other colleges by attracting about 50 people — just over half of the number who came to the Solar Energy program. John Cates (Highland Park), Dwight Hinds and Milton Beale (Washtenaw), and Gene Thomas (ERIM) presented the lectures to a varied audience who were very enthusiastic. Following the program Jacques received several requests for more information and inquiries about the mini-course.

WAYNE COUNTY COMMUNITY COLLEGE

The SEMTAP team at Wayne — Pat Drabant, Marguerite Farmer, and Mark McPherson — have been spending the month of November planning new acquisitions to the library and thinking about the organization of an official SEMTAP office at the college.

AT ERIM

During November we were happy to see two more ERIM staff members become involved with SEMTAP. George Zissis has been involved with technology transfer and information dissemination for several years as head of the Infrared Information and Analysis Center. He will be providing administrative coordination for the activities of Lou Galan (the other new arrival), Irv Sattinger, and Gene Thomas. Galan came to ERIM from Bendix Research Laboratories, where he was a Senior Project Engineer in the Applied Mechanics department. He will be involved in course preparation and presentations, along with Sattinger and Thomas.

FROM THE EDITOR

Merry Christmas!

— *Judy Steeh*

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LOS ANGELES

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CLEARINGHOUSE FOR
JUNIOR COLLEGES

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